

INVESTIGATING THE TRANSFERABILITY OF
THE WORKPLACE PARKING LEVY

By

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A Doctoral Thesis

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Abstract

Traffic congestion is a significant cost to society, amounting to somewhere between 1 and 2% of GDP according to an EU-wide survey (CE Delft, 2011). To address this cost, road pricing has long been viewed as the first best solution although issues with public and political acceptance have meant the uptake of such schemes has been low. In the meantime parking policies, a second best alternative to road pricing, have become extensively used by local authorities as a means of managing congestion due to the influence the price and availability of parking can have on a motorist's decision to drive.

The effectiveness of such strategies however is limited due to local authorities being unable to control privately owned parking. More specifically, free parking at the workplace is seen as contributing to congestion at peak times by incentivising drivers to commute to work by car. To address this, in the UK the Transport Act 2000 granted powers to local authorities to introduce a Workplace Parking Levy (WPL) whereby employers are required to pay a sum based on the number of parking spaces they provide for their staff with the revenue hypothecated for local transport improvements. The introduction of such powers meant the Government estimated there would be 12 schemes by 2010. To-date however, only Nottingham has introduced a WPL.

The aim of this thesis therefore is to investigate the transferability of the WPL to other local authorities which is analysed through the application of the Policy Transfer Framework to the WPL in the UK context. It focuses on the views of key stakeholders with respect to the WPL at both the national and local authority level so as to understand the reasons for the low uptake as well as the design, implementation and operational considerations required to introduce such a scheme.

The conclusions of this thesis are that lessons can and have been learnt with respect to introducing a WPL as the findings reveal that Nottingham City Council (NCC) drew on aspects of Policy Transfer to facilitate the introduction of the scheme. Specifically, NCC Councillors developed a vision of what a WPL could deliver and were reassured by experts from abroad whilst a staff transfer exercise allowed officers to learn lessons in terms of how the scheme should be designed, implemented and operated. What's more, lessons from a formal DfT evaluation of the 'pilot' scheme in Nottingham following the delivery of the full WPL package will have a significant influence (either positive or negative) on the number of future schemes. More broadly, the results suggest that the WPL is transferable and the adoption of additional WPL schemes in the future is likely. This is due in no small part to the fact that the Nottingham scheme has so far enjoyed a relatively painless introduction even though it is still too early to evaluate how successful it has been in meeting its objectives.

This research has made a significant contribution to knowledge in that it has explored the WPL with key stakeholders to generate a standard for introducing and operating a WPL. It has also provided an application of the Policy Transfer framework to understand the process and development of a new policy as well as the type and where lessons are learnt.

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List of Abbreviations

CAQDAS – Computer-assisted qualitative data analysis software
CDG – Charging Development Partnership
DfT – Department for Transport
DVLA – Driver and Vehicle Licensing Agency
ERP – Electronic Road Pricing
GDP – Gross Domestic Product
EU – European Union
ITA – Integrated Transport Authority
NCC – Nottingham City Council
NET – Nottingham Express Transit
P&R – Park-and-Ride
PFI – Private Finance Initiative
PNR – Private non-residential
RUC – Road User Charge
SACTRA – Standard Advisory Committee on Trunk Road Assessment
WPL – Workplace Parking Levy

Chapter One: Introduction

1.1 The Congestion Problem

The benefits of using a car have led to an exponential growth in car ownership and use in the last half a century. The number of licensed cars in the UK increased from 19 million in 1971 to 35 million by 2013 (DfT, 2014) and is set to increase to 37 million by 2020 (Leibling, 2008). Whilst this growth has meant individual motorists have experienced the benefits of independence, convenience and flexibility associated with owning a car, it is not without its drawbacks. Particularly at the societal level, the associated growth in car use has led to an increased demand for road space which in turn has seen road traffic congestion become a major problem world-wide in recent years, not least because of the significant costs associated with increased journey times as well as the negative environmental impacts from vehicle emissions. In an EU-wide survey, congestion was estimated to cost society between 1 and 2% of national GDP (CE Delft, 2011), whilst in the UK, Eddington (2006, p5) indicated the significance of the problem stating that 'eliminating existing congestion on the road network would be worth some £7-8 billion of GDP per annum'. In order to reduce this cost and control car use, policymakers have multiple measures available at their disposal and they can be classified as supply-side and demand-side measures (OECD, 1994).

Supply-side measures are designed to increase the capacity of the transport system and improve the flow of the network and include market controls (such as subsidy of public transport) and non-market controls (such as bus lanes or bicycle and pedestrian lanes). Meanwhile, demand-side measures seek to manage the demand for road space by attempting to control the number of people travelling by motor vehicle. Similar to supply-side measures, they include market controls (such as road user charging or parking charges) to discourage motorists via the price mechanism as well as non-market controls (such as encouraging car sharing or e-working/shopping).

Historically, the expansion of the road network to accommodate the future demand of increased car use has been a popular supply-side measure for road users and transport planners alike. Despite this, the Standard Advisory Committee on Trunk Road Assessment (SACTRA) published a report (SACTRA, 1994), Trunk Roads and the Generation of Traffic, which suggested that building new roads to reduce

congestion is a flawed strategy because the additional capacity that is supplied generally induces additional demand thereby potentially worsening congestion in the longer term.

This meant alternative approaches were required to manage the existing and future demand on the road network as 'congestion and unreliability of journeys add to the costs of business, undermining competitiveness particularly in our towns and cities where traffic is worst' (DETR, 1998a, p11). In July 1998, the Labour Government published a White Paper - A New Deal for Transport – which provided the opportunity for change as it 'offered the prospect of changing the way we travelled in the UK with less dependence on the car' (Begg, 2003, pxiv).

'Born in a wave of optimism' (Shaw and Docherty, 2008, p3), the White Paper proposed to give local authorities the power to introduce a Road User Charge (RUC) or Workplace Parking Levy (WPL) as a way of managing congestion and crucially allowed local authorities to hypothecate the revenue for local transport improvements. The legislation to allow local authorities to introduce such schemes was enacted in the Transport Act 2000 (Acts of Parliament, 2000) with London receiving similar powers under the Greater London Act (Acts of Parliament, 1999).

1.2 Road User Charging and Workplace Parking Levy

Although the Transport Act 2000 gave power to local authorities to introduce a RUC for the first time, the idea of charging for road space had been long established in UK transport policy. Indeed, fifty years ago Reuben Smeed (the first Professor of Traffic Studies at University College London) chaired a study and produced a Report on the Economic and Technical Possibilities of Road Pricing. The reason for this study was to identify if different methods of charging, including road pricing, could reduce the problems of congestion. This was because it was perceived that the existing motoring taxes had led to the inefficient use of the road network as they failed 'to discriminate between those situations in which congestion costs of road space are high and those in which they are low' (Ministry of Transport, 1964, p9). To correct this, Smeed proposed that 'charges would be in the nature of prices for using the roads, the prices varying from one place and time to another according to the costs – notably the congestion costs – involved in driving in a particular area at a particular time' (Ministry of Transport, 1964, piii).

Grieco and Jones (1994, p1518) therefore defined RUC as a 'charge introduced explicitly to make drivers pay for the costs of congestion and other externalities that they impose on other road users'. Moreover, by introducing a charge for the use of road space, based on place and time, it 'would

optimize the use of urban roads and ensure that use would be restricted to those willing to pay for the congestion costs of extra travel time and vehicle operating costs they impose on others' (Button, 1998, p113). This optimisation of road space has meant that RUC has long been established as the 'first-best' solution for managing congestion (Verhoef et al, 1995).

Emmerink et al (1995, p581) however, identified that 'although on theoretical grounds it can be easily shown that congestion pricing is a first-best solution for efficiently dealing with congestion, this instrument cannot yet boast much public and political support'. This has meant that whilst a RUC scheme has been introduced in London, similar schemes have failed to be introduced in cities such as Edinburgh and Manchester (Schaller, 2010). Furthermore, in some circumstances the cost of implementation and the enforcement requirements of RUC schemes mean that it may be sub-optimal in cost-benefit terms and if the introduction of schemes is limited only to a few cities, it would distort traffic flows over the national network leading to reduced overall welfare (Button, 1998). These difficulties have therefore meant other 'second-best alternatives', such as parking policies, have become increasingly popular with transport planners to manage congestion.

Accordingly, the second new measure made available to local authorities in the Transport Act 2000 was the WPL. This measure would require employers to licence and pay a levy on the number of parking spaces they provide for their staff with employers reserving the right to pass the charge on to their employees that require parking in order to reduce the cost on business. The reason local authorities were given power to introduce a WPL was because parking policies were identified to be able to reduce traffic in an area by changing the price and availability of parking (DETR, 1998a). However, whilst local authorities could change the price and availability of parking that they controlled, a lack of influence on parking at private premises such as businesses meant the effectiveness of parking strategies would be limited. In addition, congestion was highlighted as a particular problem during peak periods with a significant proportion of this traffic consisting of commuters who were being encouraged to drive to work through the availability of free parking at the workplace (DETR, 1998a). A WPL would therefore 'offer local authorities significant new powers for tackling congestion and pollution in their areas ... [and allow local authorities to] develop comprehensive parking management policies that support their transport and development plans' (DETR, 1998a, pp117-118). However, in stark contrast to the RUC literature, there is a distinct lack of research available on the WPL.

Moreover, the power to introduce a RUC and WPL was expected to be a catalyst for the introduction of such schemes in part because at the time, Councillors, Officers and Academics in the UK viewed the

issues associated with morning congestion (84% of respondents) and evening congestion (77%) as *serious or very serious* (Ison and Wall, 2003). Consequently the Government estimated there would be eight RUC schemes and twelve workplace parking levies introduced by 2010. Yet today there are only two RUC schemes (a cordon charge in London as well as an entry charge to a single street in Durham) and one WPL scheme (Nottingham) in operation. The question that arises then, relates to why such policy options, having been launched with such expectations have proved (so far at least) so unattractive in practice to those very local authorities that had previously expressed an interest into such schemes. This thesis therefore looks at the case of the WPL.

1.3 Research aim and objectives

Whilst the advantages and disadvantages of parking policies are discussed in Chapter 2, it is useful to provide a short overview of these issues in order to contextualise the aim and objectives. Parking policies are viewed as a second-best alternative to RUC as they are 'more likely to yield improvements rather than an optimal outcome' (Button and Verhoef, 1998, p120) as they do not affect through-traffic (Glazer and Niskanen, 1992) and the parking charge is unlikely to consider how far a motorist has travelled prior to using the parking space, nor the route travelled (Verhoef et al, 1995). This final point is important because the route and distance a motorist travels mean that the parking charges are unable to accurately reflect the costs motorists impose on other road users.

Despite these issues, Caicedo (2012, p63) noted that 'developments in parking policy have been recognized as a crucial part of the economic and transport policy of a city as it can impact upon economic development and the competitiveness of the local economy; this is achieved through variations in the amount, type and cost of available spaces'. Moreover, as improved transport services can support the economic, social and environmental objectives of a city (Banister and Berechman, 2001), parking policies can be used to achieve wider objectives in addition to transport goals. Moreover, the revenue from parking charges can be used to improve local transport improvements which can deliver further benefits as Docherty et al (2009, p322) stated that 'there is substantial evidence in favour of the assertion that locations with poor transport systems are at a competitive disadvantage when compared with those with high-quality transport infrastructure'.

So far therefore, it would appear acceptable to suggest that although parking policies achieve sub-optimal solutions they could also deliver significant benefits. Moreover, the difficulties associated with introducing RUC mean that second best alternatives such as parking policies are likely to have an

increasing role in managing the issues associated with congestion. In addition, the importance of high-quality transport infrastructure as well as the ability to use transport to achieve economic, social and environmental objectives, mean that understanding the impact of parking policies is important. However, there is a significant lack of research with respect to the implementation, operation and principles of a WPL. To this end, it is necessary to understand the role a WPL may have in future policy making and therefore the aim of this research is:

To investigate the transferability of the Workplace Parking Levy as a transport policy measure

There are five research objectives:

1. *To identify the issues associated with parking policy*
2. *To explore the role of Policy Transfer with respect to the WPL policy*
3. *To examine the views of key stakeholders with respect to the introduction and operation of the WPL in the City of Nottingham*
4. *To understand the views of key stakeholders with respect to the WPL in the UK*
5. *To develop recommendations for policy makers and practitioners considering the implementation of a WPL*

In addition to the aim and objectives, this chapter has also given rise to the first two research questions of this thesis which later feed into the overall research gap. Specifically, these are:

Research Question 1:

What are the views of Government and Local authorities with respect to traffic congestion?

Research Question 2:

What are the views of Government and Local authorities with respect to parking policies?

1.4 Thesis Structure

To address the aim and objectives, this thesis consists of a further nine chapters, as follows:

Chapter Two: Parking Policy and Issues

A literature review provides a detailed account of parking policy. It describes what parking is, the different types that exist as well as how parking has evolved. The chapter then examines the issues of parking policies as well as the wider objectives that can be achieved. It also covers implementation issues of parking policies before a final review with respect to how different parking policies perform.

Chapter Three: Theoretical Framework

This chapter outlines the theoretical framework used within this thesis. It covers the origins of the Policy Transfer Framework and explains how it has evolved. It describes why actors engage in Policy Transfer, what is transferred, from where lessons are drawn as well as what restricts or facilitates the Policy Transfer process.

Chapter Four: Research Approach

The ontological and epistemological position is defined, before the research questions and chosen theoretical framework are described to provide justification for the research design and methods employed.

Chapter Five: National Review of the Workplace Parking Levy

First, a review of national documentation is provided to describe the development of the WPL, which covers the reasons why it was included in the Transport Act 2000, the initial interest following the legislation, the support provided by Government to authorities interested in the levy as well as the current view of Government today. Second, the chapter describes the results of interviews undertaken with senior central government officials involved during the key years of the WPL development to provide a greater understanding of the thinking behind the WPL at the time.

Chapter Six: Nottingham Review of the Workplace Parking Levy

This is the first of two chapters that covers the WPL in Nottingham. Initially, this chapter details a review of the documentation associated with the WPL in Nottingham and then it outlines the reasons for this approach, the issues associated with implementation, and the details surrounding the operation of the scheme.

Chapter Seven: Nottingham Case Study of the Workplace Parking Levy

This chapter develops the results of the previous chapter by obtaining the views of key local stakeholders. It covers the reason why the WPL was introduced, the issues associated with implementation and operation, the short and anticipated long term impact as well as the likelihood of schemes being introduced in the future by other local authorities in the UK.

Chapter Eight: National Case Study of the Workplace Parking Levy

This chapter builds on the results of the three previous chapters to provide a detailed review of the views of key stakeholders in England. First, it covers the views of transport Officers and Councillors with respect to transport related issues as well as the effectiveness and acceptability of measures to reduce congestion. The second part then seeks to understand the respondents views with respect to the WPL covering the key issues highlighted in the previous chapters as well as the likelihood of other local authorities introducing a WPL and the influential factors affecting such a decision.

Chapter Nine: The Current and Future Role of the WPL: A Discussion

The findings identified from the research are then drawn together and compared with the existing literature. The findings are presented in light of the research questions proposed. These cover the views of local authorities and Government with respect to congestion and parking policies. A detailed account of the reasons why parking levies are introduced, the issues associated with implementation and operation and the impact of such schemes are then covered. Finally the future role parking levies may have as a transport policy measure and the role of *Policy Transfer* are addressed.

Chapter Ten: Conclusions and Recommendations

The key findings from the research are highlighted in light of the research aim and objectives. This chapter will also provide the policy recommendations as well as details of the original contributions made to knowledge. Finally the limitations of the research and the areas of future work are discussed.

Chapter Two: Parking Policy and Issues

2.1 Introduction

Although there are many ways in which congestion can be managed, parking policy was identified as a promising area of enquiry in Chapter 1. Chapter 2 will therefore present the literature associated with parking policy. To begin with, a brief introduction will be provided with respect to what parking actually is and its link with car use. This will be followed by an analysis of the different types of parking that exist and a review of the different characteristics that can be associated with the various forms. The evolution of parking will follow which will address the origins of parking and how policy has developed.

This will be followed by a more detailed review of parking, structured using the policy cycle framework. The reasons for introducing parking measures will be reviewed first under the agenda setting stage. A policy formulation section will then address the measures that exist for managing parking. A brief analysis of the decision making process will be presented to understand some of the considerations required as well as the difficulties policy makers may have. These difficulties will be expanded on in the following section, implementation, as a review of the various considerations that are required will be analysed to understand how a measure can be implemented successfully and ways to improve acceptance. The penultimate section will be the evaluation stage to understand how the various measures perform. A summary will then provide a conclusion to the chapter where the research questions identified from this chapter will be described.

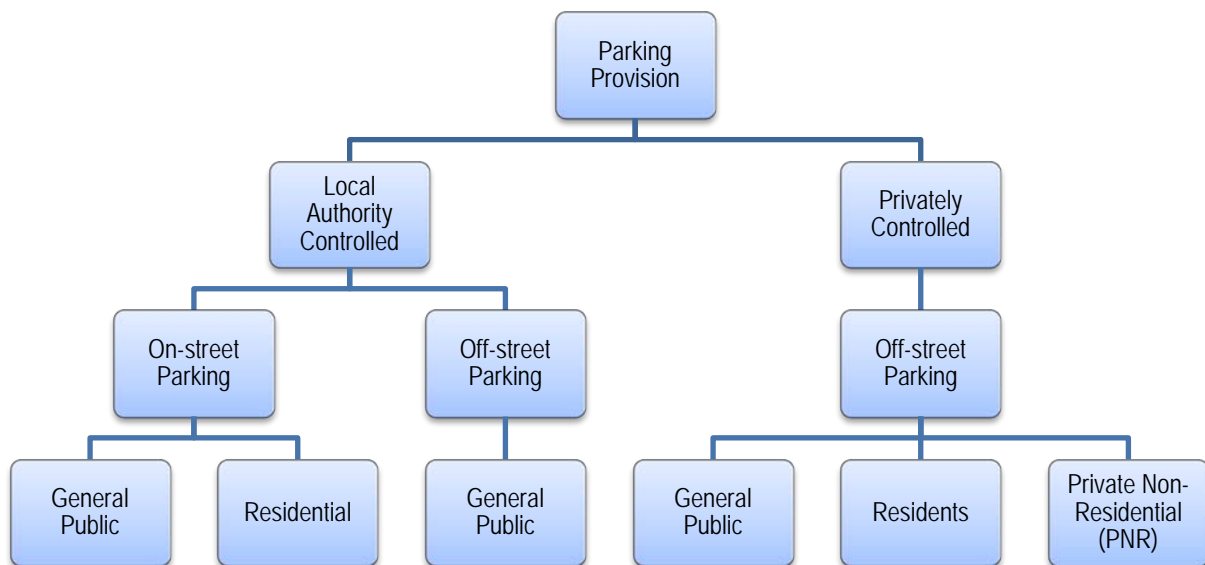
2.2 Parking Overview

Parking has a dual meaning as it can be both a verb and a noun; this is because it can either relate to the process of driving to find a parking space or indeed the infrastructure available to store vehicles when they are not in use. Valleley (1997) however argued that the focus of parking research should be on the process of parking because this can capture all aspects of the parking experience; this includes the type, users, cost and availability.

As will become apparent, parking is an important and complex feature of the transport system, not least because motor vehicles are parked for a significant proportion of their life. RAC (2012) found that cars are parked 96% of the time, whilst Ison and Rye (2006) suggested automobiles were parked for 95% of the time, which inherently makes parking a major aspect of car use. As motorists use their vehicles to travel between destinations and then wish to store their vehicle temporarily whilst at a destination, it means that parking is required at most locations where motorists wish to travel. Motorists demand parking to be available at their homes, at the places where they shop and at places where they work to name but a few. Due to this demand Gruen (1973) estimated that for each vehicle there is at least one parking space at the place of residence and three to four parking spaces at other locations. A more recent estimate specifically for the US, suggested that for the 240 million passenger vehicles and 10 million on-road freight vehicles, the number of parking spaces is anything between 722 and 2,100 million spaces (Chester et al, 2011).

To this end, the type of parking that exists is presented in Figure 2.1; this can be categorised depending on the control (public or private), location (off-street or on-street) and users (general public, residents or private non-residential) of parking. Due to these various aspects and users of parking, RAC (2012, p106) stated that 'parking has become very complex'. The implications of these characteristics will now be discussed based on the agencies that control parking due to the differences in the reasons of why parking is supplied; these are local authority and privately controlled parking.

Figure 2.1 - Types of Parking: Control, Location and Users



Source: Adapted from Enoch and Ison (2005)

2.2.1 Local Authority Controlled Parking

Local authorities control parking spaces both on-street and off-street and can design parking policies in order to achieve a desired objective; this could be to raise revenue, restrain car use or regenerate a part of the urban area (Marsden, 2006). This can be achieved through changes to the price and/or supply of parking available in urban areas and will be determined by the objective the local authority intends to achieve. Whilst this approach can be applied to both on-street and off-street parking, the nature of on-street parking can result in different outcomes.

On-street parking is space on the carriageway itself, often at the kerb side. The availability of on-street parking is however 'largely dictated by the design characteristics of the road and street network, namely the overall dimensions, and proportion of space allocated to parking' (IHT, 2005, p68). This is because a carriageway's primary purpose is to allow the free movement of vehicles and only if the carriageway width has space available, would on-street parking be considered. As a road can serve two purposes, either for parking or a carriageway, on-street parking is considered more complex. This is because although on-street parking can make a location more accessible to motorists, there are a number of benefits that can be attained by removing on-street parking.

The removal of on-street parking creates an increase in road capacity as the carriageway is widened and reduces the number of termination points for motorists which can lead to a reduction in car use as driving is made less attractive (Enoch and Ison, 2005). In addition, IHT (2005, p68) highlighted three further benefits of removing on-street parking:

1. The space gained could be used for pedestrian or environmental improvements;
2. The risk of a vehicle colliding with a pedestrian whilst manoeuvring in and out of a parking space is reduced and is of particular importance in areas of high pedestrian activity such as in town centres;
3. If motorists are aware that on-street parking exists then they are more likely to drive around searching for a space which creates additional congestion.

A further concern is an equity issue with the provision of on-street parking. This is because vehicles have no right to park on a carriageway as it is classed as an obstruction and it is only where local authorities impose regulations to allow vehicles to park is on-street parking allowed. However as the roadway is a public highway, moving vehicles have priority on the carriageway over parked cars. This is because IHT (2005, p87) suggested 'that those who choose not to own a car, cannot afford to own a car, not eligible to apply for a permit, or pay to provide an off-street space for their car, are subsidising those who park on the public highway' unless the price of on-street parking covers the implementation, administration, enforcement and maintenance costs of supplying it. Despite these reasons in favour for removing on-street parking, consideration is required for enforcement and penalties of illegal parking. This is because if motorists continue to park on-street illegally it reduces the benefits and effectiveness of the parking strategy as car use is not reduced, revenue is not raised, the carriageway is not widened and safety concerns can be created if the vehicle acts as an obstruction (IHT, 2005).

Meanwhile, off-street parking accounts for 'much of the parking stock in town and city centres' (IHT, 2005, p69) and comes in the form of multi-storey car parks, surface parking lots and underground car parks. Whilst different in its form, RAC (2012, p103) outlined that 'on-street and off-street parking should be in equilibrium, reflecting the costs of providing a parking space'. This is because if on-street parking is free or significantly cheaper than off-street parking, this reduced cost is likely to encourage motorists to drive around in order to find a free or less expensive parking space on-street. This searching increases congestion as motorists travel additional miles even after they have arrived at their destination to find a free parking space. Further issues were outlined by IHT (2005) as it was stated that if there is plenty of parking supply off-street that is under-utilised then this parking should be used and

encouraged as it can allow on-street parking to be converted into a better use; this may be for a pedestrian zone in town centres or to simply increase capacity on the carriageway. This therefore provides an indication of the importance of ensuring parking strategies cover all types of parking in order to be effective.

To this end, for a local authority to use parking policies to achieve certain objectives it is important they are able to exert a degree control over a significant proportion of the off-street parking stock. However, in many areas this not the case as much of the parking stock is actually controlled by private operators which mean local authorities have little or no control over the price or availability of parking once the spaces have been developed which can reduce the effectiveness of local authority parking strategies (IHT, 2005). For example although local authorities may structure the price of parking based on the length of stay in order to discourage commuters and encourage shoppers and visitors to benefit the urban vitality (Enoch and Ison, 2005); private operators will set prices to maximise profit as they have less of an incentive to achieve the wider objectives of which local authorities hope to achieve. Local authorities therefore need to design their parking strategies to achieve a given objective as well to be competitive in terms of cost with private operators and neighbouring authorities to avoid deterring and losing visitors.

2.2.2 Privately Controlled Parking

Private parking is usually developed because of a direct or an indirect commercial interest. For example parking is available at a shop to allow customers to park; workplace parking exists as a benefit for staff to allow them to drive to work; and residential parking increases the value of a property as parking provision is attractive to homeowners. In addition to this, private off street parking exists in areas of high demand, such as in town and city centres, where a fee can be charged as a means of directly raising revenue. This parking is often priced based on a number of factors such as demand for parking, the supply of parking in the vicinity and the price of a competitors parking (RAC, 2012, p105). If a private car park operator is operating independently from local authority incentives, then the primary objective is to maximise revenue opposed to the wider objectives local authorities hope to achieve through parking strategies; this can pose a significant issue for local authorities.

Private parking can be categorised into three separate types; residential parking such as a driveway or a garage, parking for the general public such as multi-storey car parks in town centres, and private non-residential (PNR) parking such as space provided for employees at the workplace. In addition to the

commercial interest of providing parking, a major reason for the existence of this type of parking is because local authorities have traditionally required developers to provide sufficient parking at new developments for the estimated demand of the site as a requirement of attaining planning permission. These historical requirements for developers to provide parking have meant a large proportion of parking is now privately controlled. A study by MTRU (1995) found that 43% of parking spaces in a sample of 17 major UK cities are private non-residential whilst a more recent study suggests that PNR parking 'typically forms half or more the total stock in town centres' (IHT, 2005, p59). This makes it difficult for local authorities to use parking strategies to achieve wider objectives as 'parking policies can only be applied to spaces where a local authority can exert some form of control, be it regulatory or fiscal' (Enoch and Ison, 2005, p2).

As PNR parking accounts for nearly half of the parking in urban areas, when added to the rest of private parking, i.e. residential and private parking available for the general public, this percentage can be expected to be much higher. This means that local authorities are not in control of large proportions of parking in urban areas and therefore once private off street parking places have been developed, it is difficult for local authorities to have an efficient parking strategy as they can have little or no jurisdiction over a significant proportion of parking (IHT, 2005). This issue of private parking is emphasised further because of its popularity as Shoup (2005, p232) argued that 'parking is a valuable asset for any development, and a lack of on-site, owner controlled parking can reduce a development's ability to attract tenants and customers'. By viewing parking as a valuable asset, it encourages developers to provide a certain level of parking which encourages car use to and from the site. This attractiveness means that developers ensure parking is available at residential locations, workplaces as well as at commercial sites in order to attract the general public.

2.2.3 Users of Parking

The users of parking can be split into three categories; general public, residents and private non-residential. Due to its nature, private non-residential parking is exclusively controlled by private operators whereas the other two types are shared.

General public parking users are motorists who park their vehicles and pay a fee for purposes other than residential or workplace reasons; this includes shopping or for any leisure activity. The parking spaces may be provided by a local authority either on or off-street; or by a private company such as 'NCP, BAA or other car park operators' (Enoch and Ison, 2005, p3).

Residential parking is used by motorists who need to store their vehicles whilst they are at home and exists both on- and off-street. Off-street residential parking is usually in the form of driveways or garages on the resident's property or may exist in courtyards or basements where parking is communal. This last approach has been highlighted to be a more efficient use of space compared to dedicated spaces at individual dwellings as 'car ownership rates vary between households over time, due to different lifestyles, incomes, and progression through the life cycle' (IHT, 2005, p83).

Despite the variance of car ownership in households over time, the majority of households require at least one parking space, with many households often desiring multiple spaces. An example of residential parking being attractive can be justified by the willingness-to-pay for property. TRL (2010, p24) indicated 'that a parking space will typically add around 8% to the value of a property, while a single garage will add a further 3%, and a double garage a further 9%'. This highlights the value of parking and the reason why developers make provision for parking.

The availability of residential parking is a major influence on car ownership and therefore use given that 86% of journeys start or end at the home (RAC, 2012). Weinberger (2012, p100) supported this claim as it was stated that there is 'a clear relationship between guaranteed parking at home and a greater propensity to use the automobile for journey to work trips even between origin and destinations pairs that are reasonably well and very well served by transit'. Although the majority of residential parking is private off-street because homeowners own a driveway or garage (RAC, 2012), local authorities are often required to control on-street parking in residential areas.

On-street parking in some residential areas however constitutes the entirety of the parking supply. For example off-street parking in houses constructed before the middle of the twentieth century or in inner city areas is unusual which leads to problems with on-street parking for residents' cars. This is particularly so because of rising car ownership and 'the subdivision of larger houses into smaller flats' which mean that demand for residential parking spaces in urban areas can be intense (IHT, 2005). This demand needs to be managed through parking controls such as permit schemes allocating residents with a licence to occupy a space. One issue with residential permits is that they normally favour the residents as van Ommeren et al (2011, p25) argued 'local governments parking policies discriminate between residents and non-residents by providing on-street parking permits to residents, allowing residents to park at a fraction of the parking tariffs faced by non-residents'. This is identified to be a problem as 'the provision of residential parking permits will generally induce inefficiencies' when residents have a lower willingness-to-pay for the parking compared with other users (van Ommeren et

al, 2011, p25). As previously identified, the cost of on-street parking permit should cover the full cost of supplying the parking.

Regardless of whether the parking is on or off-street, leasing the spaces separately to the dwellings generally reduces demand and therefore provision and 'allows those who want a car to have a space but makes it cheaper for those who choose not to have a car to buy or rent a dwelling' (IHT, 2005, p87). Furthermore, Weinberger (2012, p101) suggested that 'from a policy perspective, householders with a strong preference to drive should be discouraged from transit rich areas because they potentially "waste" the transit resource'.

PNR parking applies to spaces that are controlled by private operators off-street and used by particular groups. These groups include customers, visitors and employees. Spaces for visitors and customers are often offered free of charge to encourage motorists to travel to these destinations. An example of this is out of town shopping areas where free parking is offered to encourage motorists to shop at their location opposed to paying for parking in city centres.

Parking provided by employers for employees at the workplace is also often free or heavily subsidised to motorists, which makes driving an attractive option for commuters. Moreover, the issues associated with a lack of control over this type of parking for local authorities is emphasised due to the tidal length of stay particularly in urban areas. This is because the hours at the workplace traditionally revolve around the '9-5 work day' which has led to peak hour congestion as traffic enters an urban area in the morning and leaves in the evening, creating a tidal parking demand (Hill, 2005). This issue is exacerbated by commuters travelling to urban centres from surrounding areas by car as is the case in Edinburgh where 70% of people of commuters from outside of the city travel by car (Rye et al, 2008).

A lack of control over private non-residential parking particularly at the workplace is therefore seen to be a major problem for local authorities when introducing parking strategies to meet planning or transport objectives. Moreover, this lack of control is emphasised by the contribution this has on peak period congestion. To this end, IHT (2005, p70) argued that in order 'to ensure that the full potential of a parking strategy is achieved, it will be necessary to adopt a policy of reducing, over time, the amount and proportion of parking that is outside the local authority's control or influence'.

2.2.4 Summary

In summary, parking is controlled by two bodies with different interests and objectives. Private operators, have the sole interest of maximising revenue and although local authorities may also be keen on raising revenue, they may also want to use parking strategies to achieve other objectives such as improving urban vitality or reducing car use. Although local authorities have the ability to control and change the parking that they are in control of in order to achieve a given objective, the success is dependent on the amount of private parking in an area as well as the price of this type of parking. A conclusion that can be drawn from this early section is that although there are numerous strands to the types of parking, they are all inter-linked together through a complex parking system. Furthermore, whilst local authorities can control the parking they manage, privately owned parking creates a significant issue due to a lack of jurisdiction. In particular workplace parking is a problem area as it is often provided free of charge as well as the tidal flow of demand which is a major contributor to peak period congestion. For this reason, understanding the different ways of managing this type of parking appears to be an important area for further research. The next section will focus on the development of parking over time, how it has developed into its current form today and the impact this has had.

2.3 Parking Evolution

At the beginning of the motor car era, the few motorists that could afford a car, parked outside their destination because of a low demand for parking spaces due to low level of car ownership. However a dramatic increase in vehicle ownership during the 1910s and 1920s meant that there was a parking problem as the majority of parking remained cost free which meant that the demand for spaces, at certain times, exceeded the supply.

Despite this issue, the initial requirement of parking policies was for the 'important but rather narrow concerns about safety and obstruction of traffic flow on the streets' (IHT, 2005, p19). As parking evolved, increased emphasis was placed on parking availability to ensure there was sufficient parking supply to accommodate the demand from motorists requiring a space. The reason for this was because if there was insufficient parking it was believed to have a negative impact on urban vitality as motorists could not travel by car to their location and would lead to motorists 'cruising' to find an available parking space despite the fact they had already arrived at their destination. This would lead to additional congestion, noise, wasted time, wasted fuel and polluted air (van Ommeren et al, 2011; Shoup, 2005). To solve the issue of a lack of parking availability, many countries around the world required

'developers to provide adequate parking to serve the new developments as a condition of receiving planning permission' (Enoch and Ison, 2004, p8), often in the form of minimum parking requirements. This was to ensure that if a new business developed a property at a given site, there was sufficient parking for their staff and customers.

More recent studies however, have found that minimum parking requirements led to greater problems than the original problem they were designed to solve. This is because Weinberger et al (2010, p2) suggested minimum parking requirements lead 'to sprawling cities where the costs of driving are shifted to the general public' and Al-Fouzan (2012, p202) argued they lead to 'land and transport market imbalance'. This is because 'planners typically use generic standards that apply to general land use categories' when setting minimum parking requirements opposed to variables such as 'density, demographics, availability of transport choices, or the surrounding land-use mix – all of which influence demand for parking and should be reflected in parking requirements' (Forinash et al, 2004, p2). To this end, Al-Fouzan (2012, p202) indicated that increased parking availability 'was creating cities that were less economically competitive and attractive to residents, business and consumers'.

The issues associated with minimum parking requirements include concerns for the environment, equity, cost, consumption of land and resources, encouraging car use, degrading water quality, reducing urban density which decreases the attractiveness of walking and cycling as well as makes it difficult to provide transit services (Forinash et al, 2004; Shoup, 2005). In addition to these issues, it also has led to 'sustained criticism for wastefully shifting parking costs from car users to everyone in society and contributing to car-dependence' (Barter, 2012, p23). This is because minimum parking requirements have led to 'ample supplies of free and inexpensive parking' which has meant in some cases supply has exceeded demand creating 'artificially low prices for parking even in downtown central business districts' (McShane and Meyer, 1982, p131). Therefore because of these reasons, the wider impacts of parking were being questioned during the 1970's, such as the effect on land use and transport trends, and led to a change in how parking policies were viewed (IHT, 2005).

Litman (2013) analysed the differences between the historical view of parking and how this perception shifted. Table 2.1 demonstrates that parking issues today arise in many different forms, including both too much and too little, should be assessed on an individual basis and in most instances should be paid for by the user to maximise efficiency. Moreover, parking measures and management programmes should be encouraged and increasingly used as a tool due to the flexibility of solving numerous problems, including issues that may appear unrelated to parking. Furthermore analysis of measures,

even if unsuccessful, should be made and encouraged to understand the transferability of schemes that attempt to manage private parking so that they can be replicated in another location.

Table 2.1 - Parking Paradigm Shift

Old Parking Paradigm	New Parking Paradigm
Parking problem means inadequate parking supply	There can be many types of parking problems, including inadequate or excessive supply, too low or high prices, inadequate user information, and inefficient management
Abundant parking is always desirable	Too much supply is as harmful as too little
Parking should generally be provided free, funded indirectly, through rents and taxes	As much as possible, users should pay directly for parking facilities
Parking should be available on a first-come basis	Parking should be regulated to favour higher priority users and encourage efficiency
Parking requirements should be applied rigidly, without exception or variation	Parking requirements should reflect each particular situation, and should be applied flexibly
Innovation faces a high burden of proof and should only be applied if proven and widely accepted	Innovations should be encouraged, since even unsuccessful experiments often provide useful information
Parking management is a last resort, to be applied only if increasing supply is infeasible	Parking management programs should be widely applied to prevent parking problems

Source: Litman (2013)

As outlined in Chapter 1, the 'predict and provide' approach for car use in the UK is no longer acceptable due to the unsustainable environmental and financial cost of providing road space for future estimated unrestrained demand. There is a similar view for the supply of parking. Factors such as the availability and cost of parking at the motorist's destination have a major impact on the departure time, the mode an individual uses to make a journey and even if they make the journey at all. Therefore because of this influence Qian et al (2011, p861) argued that 'it is then not difficult to imagine that parking can be a useful instrument in managing travel demand and taming congestion in crowded downtowns'.

In summary encouraging developers to provide parking has been identified to cause greater problems than the issue it was originally designed to solve and has led to an abundance of private parking which

is now out of local authorities' control. A shift away from the historical 'predict and provide' approach for car use and the increased attention on the environmental aspect of transport and land use of an area, has meant parking has received an increased focus as a method for managing car use and achieving wider objectives at a local, regional and national level. This is because parking factors are seen to be an important influence on mode choice (Weinberger et al, 2010, Caicedo, 2012: TCRP, 2003; Ison and Rye, 2006) as well as influential for achieving other objectives. This is because Marsden (2006, p448) highlighted the advantages of parking policies by suggesting that 'well designed parking policies, in various ways, contribute to the promotion of a more efficient use of the transport network, lower emissions, higher densities and better, more inclusive urban design'. The next section will address the issues associated with parking as well as the reasons why parking policies may be introduced.

2.4 Parking Policy Issues

Prior to implementing a parking policy, there needs to be an underlying reason or problem that exists to justify its introduction; these fall into two broad categories. The first is to solve parking problems and the second reason is to solve broader policy problems.

Many arguments concerning parking are centred on there being either too little or too much. The argument for too little parking is that if it is wrongly priced it can lead to 'cruising for parking' which can create additional congestion as motorists try and find an available parking space (Shoup, 2005). Moreover, RAC (2012, p93) found that 'inadequate provision of parking results in parking on pavements and verges, blocking roads for other vehicles'. The traditional view therefore was that too little parking would reduce the attractiveness of a location if motorists were unable to park.

Weinberger (2012, p94) however, suggested 'that there is little evidence to suggest that parking restraint in town centres is a major contributor to economic decline, indeed other research shows that economic decline and CBD parking capacity increases may track very closely and consistently' and 'that an undersupply of parking can reduce car ownership' (RAC, 2012, p90). These views have therefore led to increased attention on there being too much parking in that parking is expensive to provide and can consume large quantities of land (Forinash et al, 2004) which is often not paid for in full by motorists which makes driving appear cheaper than reality (RAC, 2012) and raises equity concerns on the basis that if motorists do not pay for parking that they use then who does (Shoup, 2005). To this end, there is therefore support (Shoup, 2005; RAC, 2012; Pierce and Shoup, 2013) that motorists should pay for the full cost of parking.

2.4.1 Direct Parking Issues

This section focuses on some of the issues directly associated with the existence of parking. These include the price in which parking spaces are set at and the influence this has on 'cruising' for parking, the considerable space parking requires and the consequential impact, as well as the effect it has on the environment.

Cost of Parking

Free or under-priced parking encourages car use as the full cost of motoring is not internalised by the road user which makes driving appear to be cheaper than it actually is. This is because Shoup (2005, p601) suggested that if parking is free, 'the cost of parking will remain hidden in higher prices for everything else' and 'will skew our transportation choices toward cars'. For this reason, there are equity issues if 'free parking' is available as it will mean that parking is being subsidised by everybody else, even people who do not own a car, through a higher price for everyday goods by 'consumers, investors, workers, residents and taxpayers' (Shoup, 2005, p2). What's more for on-street parking charges, it was highlighted that using the 'revenue to pay for local public services is much fairer than keeping curb parking free, losing the revenue needed to pay for public services, creating chaotic parking problems on busy streets, and increasing traffic congestion caused by drivers who are searching for free parking' (Pierce and Shoup, 2013, p79). The revenue can therefore be used to improve the equity of the charges.

For these reasons, it is argued that motorists should pay the market price for the full cost of parking so that a decision can be made regarding each trip based on the full cost of making a journey. The notion that the price for parking should include the cost of construction and maintenance of each parking space has long been established (Vickery, 1954; Roth, 1965; Glazer and Niskanen, 1992). This argument was based on that by charging the market price 'drivers will always be able to find a place to park if they are willing to pay for it, and the curb parking revenue will pay for valuable services' (Shoup, 2005, p595). The pricing of parking is therefore an important aspect of a parking strategy. IHT (2005, p98) suggested one approach by stating that 'matching demand to supply through price is good practice from an operational as well as a policy standpoint. It means that:

- The car park aisles do not become congested with cars seeking spaces;
- Queues building up on the highway due to shortage of space are avoided; and

- Revenue is maximised within the established parameters for tariff setting (e.g. a policy decision to favour short stay up to four hours). If charges are lower, then revenue is foregone as some customers cannot park, or have to wait for long periods'

Furthermore ineffective area wide pricing controls or a lack of supply can lead to 'cruising' for parking which means that vehicle travel increases 'without adding either vehicles or real travel' (Shoup, 2005, p14). For example if there are plenty of parking spaces in an area which are priced differently it may encourage motorists to drive around and wait for a lower priced or free parking bay to become available instead of parking in a more expensive available space. What's more, cruising is 'an entirely rational response to prices' (Shoup, 2007, p18) and can be solved by charging the market price for parking (Shoup, 2005a). Moreover, the problems associated with wasting motorist's time and the increased negative environmental impact caused by cruising are exacerbated due to the scale of the problem. This is because Pierce and Shoup (2013, p68) indicated that 'ten studies conducted in eight cities between 1927 and 2011 found that an average of 34% of cars in congested downtown traffic were cruising for parking'. For this reason, IHT (2005, p98) argued that the price of parking should be set so that 10-15% of the parking spaces are unoccupied during peak times whilst Millard-Ball et al (2014, p91) argued 85% is 'widely promoted in the literature ... [and is] a reasonable threshold'. This is because this level ensures motorists can be confident of driving to a particular location to park and be able to find an available parking space.

In order to understand the true cost of parking, Transport Energy (2003) highlighted the significant costs that need to be considered when providing parking. In addition to the initial construction costs, an organisation needs to consider how much is spent on security, lighting, CCTV, parking barriers, pay and display machines, staff costs for both emptying parking machines and for enforcement as well as cost for tarmac, white lining and car park maintenance. Furthermore the cost of acquiring the land, opportunity cost of the land as well as a value for renting the land needs to be considered when reviewing the total cost of providing parking.

Shoup (1997a) carried out a study to estimate the cost of a parking space and found that a conservative estimate for the cost of a parking space at the University of California was \$124 a month or \$5.64 a day based on a commuter working 22 days a month. Although the value on its own is relatively insignificant, the fact that in the US the 'subsidy of free parking at work is triple the vehicle operating cost for driving to work', it means that there is a significant cost associated with driving that motorists are not paying for if free parking exists (Shoup, 1997a, p12). In the UK, DETR (1999)

estimated the cost of a surface parking space to be £800 to build with an additional £111 each year in maintenance costs at a Hewlett Packard work site near Bristol.

Calthrop et al (2000, p63) outlined the scale of the problem for workplace parking by identifying 'that 95 per cent of US auto commuters receive free parking at work, with corresponding figures of 58 per cent in London and 39 per cent in Cape Town'. Therefore as supplying parking for staff can be a significant cost to an organisation coupled with the fact that employee parking is often free, it is argued parking charges should be introduced at the workplace to ensure the cost of motoring does not appear cheaper than it actually is. There have been examples of organisations introducing parking charges, including airports, hospitals and universities (Rye and Ison, 2005, Ison et al, 2007) which have been introduced due to security issues, a lack of parking, congestion around the site, environmental problems or to simply raise revenue (Rye and Ison, 2005). Despite these examples, the introduction of parking charges at the workplace has been limited on the basis that employees that use the parking spaces often view parking at the workplace as a 'labour right' (Costa et al, 2014, p971). Moreover, these charges have been introduced to solve site level as opposed to area wide problems which further indicates the issues associated with an abundance of free parking at the workplace for local authorities due to a lack of control over this type of parking and its influence on peak period congestion.

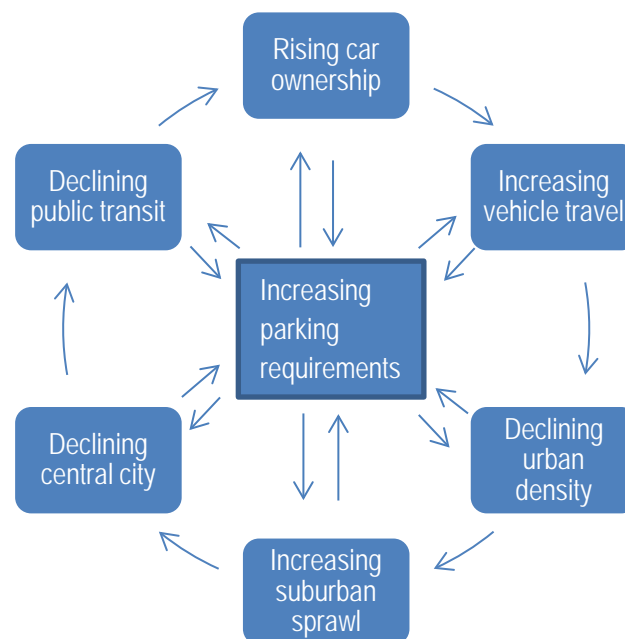
Land Use and the Environment

Parking is an important and complex feature of the transport system, not least because motor vehicles are parked for a significant proportion of their life. Ison and Rye (2008, p134) argued that 'parking spaces do not create vehicle travel, but they clearly enable it' which means parking must take responsibility for some of the negative environmental impacts associated with motoring in addition to the direct negative impacts of parking.

First, Shoup (2005, p591) outlined that 'parking is the single biggest land use in cities', much of which is empty the majority of the time. Although the majority of cars can be stored in a space that is 16ft 6ins long and 8ft wide in reality an area approximately 150 square ft per vehicle in an off street car park is more likely excluding manoeuvring space (Baker and Funaro, 1958). This indicates the significant space required in order to store vehicles. Therefore the land in which parking requires as well as the construction and maintenance costs mean that parking has a significant cost associated with it, a cost which is not always paid for by the parking user.

Figure 2.2 demonstrates how increasing parking requirements can exacerbate the problems of lower urban densities as well as a reduced demand for public transport. This is because Shoup (2005) suggested that increasing parking requirements has an impact on all aspects of the cycle which are all interlinked. For example by increasing parking requirements it encourages people to drive which increases vehicle travel, which can lead to a decline in urban density. In turn this can lead to increased parking requirements as well as an increased urban sprawl.

Figure 2.2 – Impact of increasing parking requirements



Source: Adapted from Shoup (2005, p129)

Parking therefore must take some responsibility for its role in enabling car use and should be used as a method to reduce congestion and address the environmental issues associated with car use. One such example is that parking must share some responsibility for poor air quality on the basis that it encourages car use and cars account for 17% of the total UK CO₂ emissions (TRL, 2010). Forinash et al (2004, p2) therefore stated that the demand for parking coupled with the minimum parking requirements that were established, has meant that 'in many instances, efforts to accommodate parking have overextended actual need' and has led to 'excess parking spaces that consume land and resources, encourage automobile use and associated pollution and degrade water quality'. This is because whilst the environmental impact of parking has traditionally not been considered, the focus on the environmental impact of transport has increased in recent years and parking is no exception. The environmental issues associated with parking include (Forinash et al, 2004, p3):

1. Increased impact of storm-water run-off because of impervious surfaces;
2. Increased risk of flooding and water pollution which can reduce the value of nearby properties;
3. Artificially raised temperature caused by the pavement of the parking lot leading to heat islands;
4. Opportunity cost of land as the space could be used for more productive development;
5. If land was used as green space, it would allow 'stormwater to percolate into the soil, provides wildlife habitat, provides air quality and noise reduction benefits, and is aesthetically desirable';
6. Reduced urban density which can make walking, cycling and transit less attractive as the distances between destinations is increased and can create uninteresting routes;
7. Excessive supply of parking that is priced too low leads to excessive driving which increases automobile dependency and subsequently air pollution, congestion and accidents.

In addition to the environmental impact, it was also identified that parking can have a negative impact on a town's character particularly as parking is the first and last impression a motorist has of a given location (PCI, 1997). This is important as Hill (2005) identified that the experience motorists have at a car park can be a major influence on whether a motorist revisits that location or not.

In summary, Shoup (2005, p600) argued that 'parking is only one aspect of driving, and most other aspects aren't free' and therefore neither should parking. Moreover, Shoup (1997a, p15) suggested that if parking remains free or subsidised 'it will increase the demand for automobiles and gasoline, thus increasing oil imports, traffic congestion and air pollution. The cost of parking will be hidden in higher housing costs and lower urban density. Cheaper parking will discourage travel by foot, bicycle, and mass transit'. Therefore because parking creates issues associated with land use, the environment and cruising for parking, Shoup (2005, p602) supported the claim of charging for parking by suggesting that 'we can achieve enormous social, economic benefits at almost no cost simply by subsidizing people and places, not parking and cars'.

2.4.2 Indirect Parking Issues

Parking can also be used to solve problems indirectly linked to parking. Caicedo (2012, p63) found that 'developments in parking policy have been recognized as a crucial part of the economic and transport policy of a city as it can impact upon economic development and the competitiveness of the local economy; this is achieved through variations in the amount, type and cost of available spaces'. Although a simple concept, small changes to the availability and price of parking can have a major influence on car use and therefore parking measures are becoming increasingly popular. IHT (2005,

p20) argued that 'parking is no longer a stand-alone issue, but has become a key aspect of both transport and land use planning. It must be integrated with all other aspects of urban policy now that is to be managed at levels below unfettered demand. This is necessary in order to promote and to support:

- Lifestyles that are less car-dependent;
- Transport provision that is more socially inclusive;
- Development that is more sustainable in terms of energy and pollution; and
- Settlements that are more attractive and user-friendly'.

Marsden (2006) summarised these benefits by suggesting that there are three reasons why a local authority may introduce a parking policy; to regenerate an area, to restrain car use and to raise revenue.

Regeneration

The first objective is the 'desire to use parking measures as a means of regenerating a specific part of the urban area such as the town centre' (Marsden, 2006, p448). There are multiple ways in which an area can be made more attractive, however in the short term offering plenty of parking places is popular for both visitors and commuters. This is because an abundance of parking can make an urban area appear more attractive as it encourages car use, the preferred method of travel for the majority, by increasing the chances of parking being available at a motorist's desired location (RAC, 2012). This attractiveness can be further enhanced if the cost of parking is low and if there are fewer restrictions on the length of stay. Despite this, free parking with no restrictions can lead to 'cruising for parking' and frustration for motorists as it may lead to a scenario where a space is very rarely available due to low vehicle turnover (RAC, 2012).

For this reason, Garrick and McCahill (2009) found a link between economic decline and increases in CBD parking capacity. To this end, in the longer term it may be favourable to reduce the parking supply or increase prices in attempt to reduce congestion and improve alternative transport in order to increase the attractiveness of an urban area. Parking charges have been identified to be used to achieve both objectives because by increasing the cost, driving appears less attractive and the revenue can be hypothecated to deliver improvements (see raise revenue).

Restrain car use

The second objective is to achieve a reduction in car use. Shiftan and Golani (2005, p156) suggested that 'the objective of auto restraint policies should be to increase the attractiveness of the central business district (CBD) as much as possible by encouraging people to change their choice of travel mode and travel time without discouraging them from coming to the city centre. A successful policy should restrain commuting by car without hindering shoppers and people doing personal business'.

Local authorities can use two forms of parking controls (Verhoef et al 1995) to reduce car use due to the major influence parking has on driving (IHT, 2005). First, by reducing the supply of parking it reduces the chances of parking being available for a motorist at a desired location which acts as a deterrent to that journey being made by car. Second by using the price mechanism to vary the price of parking, it will change the levels of occupancy as motorist's willingness to pay will differ and therefore local authorities can set the cost of parking in an attempt to attain target occupancy levels. RAC (2012, p104) suggested that 'as a rule of thumb, that demand should not exceed something between 80% and 90% of available supply'. An additional benefit of parking pricing controls is the substantial amounts of revenue that can be generated.

Raise revenue

The final objective is a desire to raise revenue from parking measures. The reasons for raising revenue include ensuring that the parking operation is self-funded by the charges or 'to make a surplus to fund other activities' (Marsden, 2006, p449). This surplus revenue could be used in a variety of ways depending on the parking operator and its intended objective. For example a private car park operator may simply use the surplus revenue as profit, employers may improve the security of the car parks where the revenue is collected and a local authority may use the revenues to improve alternative transport, offset negative environmental impacts or to regenerate the area (Enoch et al, 2004). Pierce and Shoup (2013) also suggested that the equity of parking charges can be improved if the revenue is hypothecated to improve local transport.

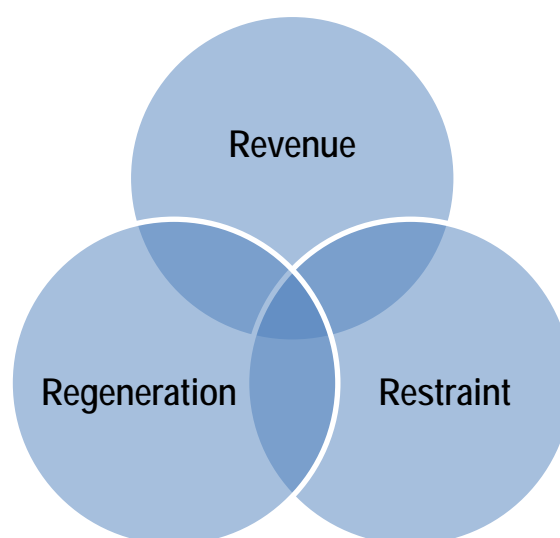
Despite these benefits, Marsden (2006, p447) outlined the difficulty of pricing parking because of the need to get the right 'balance between a revenue raising activity for local authorities, a desire to avoid deterring visitors and therefore damaging urban vitality and a need to manage transport demand'. A further difficulty with parking policies is the neighbour effect; this is because 'economic competition is likely to arise between neighbouring towns with overlapping catchments' (Potter, 2001, p2) as they will

compete for visitors and shoppers in order to generate revenue for improving the urban vitality. Therefore any authority interested in introducing new or increased parking prices, 'will face the difficulty of setting charges which are effective in achieving their transport objectives, while also being politically acceptable and broadly comparable and sustainable in relation to levies applied in neighbouring areas' (Potter, 2001, p3). Despite this focus on local authorities with respect to obtaining the right balance between objectives and pricing, the same principle also applies to other organisations such as private operators or employers keen on parking policies.

Conflicting Objectives

Following on from the final point, McShane and Meyer (1982, p134) stated that 'some goals are almost certain to conflict, so that strategies designed to achieve one will simultaneously act to the detriment of another'. Rye et al (2008, p387) stated that 'there are major conflicts in parking policy implementation: using it to manage demand for traffic may reduce revenue generation, or (be perceived to) damage the local economy'. This conflict is highlighted in figure 2.3 which suggests the optimum point in which a local authority needs to aim for is somewhere in the middle. Despite the difficulty of conflicting objectives, Marsden (2006, p456) stated that 'parking policy may not be theoretically appealing but it is practically essential' and that because of its usefulness as a tool to reduce car use and other policy problems, 'parking policy will rise in importance over the coming decades as car ownership continues to grow'.

Figure 2.3 – Confliction between parking policy objectives



2.4.3 Summary

This section has highlighted some of the issues associated with parking. These include parking that is wrongly priced as well as the negative impact plentiful parking can have on the environment and land use. Despite the benefits outlined in this section with respect to charging for parking, the effectiveness of local authority parking strategies are limited because of a lack of control over privately controlled parking. Free parking at the workplace encourages car use and was identified as a particular issue due to the amount of this type of parking and its contribution to peak period congestion. Moreover, Shiftan and Golani (2005) suggested that a successful parking policy should affect commuters without impacting shoppers or visitors.

A further difficulty is the conflict between the three objectives parking policies can achieve although it may be possible for local authorities to raise revenue or restrain car use without deterring visitors. For example if a specific type of parking was targeted, such as the workplace, there may be a greater likelihood of achieving all the objectives on the premise that business is not deterred. The next section will review parking policies that have been introduced.

2.5 Policy Formulation

The focus of this section will primarily be on managing private parking due to the issues local authorities have with respect to control as well as the impact this has on their parking strategies. It will be constructed of several different sub-sections in an attempt to categorise the various measures. The first section will be focused on measures that provide information to parking providers in an attempt to ensure that the true costs of parking are understood. This will then be followed by regulatory and fiscal measures.

2.5.1 Information and Exhortation

This section will describe the benefits of furnishing providers with information with regard to how they can better manage the parking they provide. The first measure, shared parking, is an approach that can be used to improve existing parking usage. The second approach highlights the true costs of supplying parking to private suppliers in an attempt to ensure the amount and price of parking is reflective of the costs.

Shared Parking

Shared parking can apply to local authority or privately controlled parking and is designed to reduce the supply of parking and improve the efficiency of land use designated to parking in a given area. This is because motorists demand parking for different activities at different times of the day which means parking can be shared where possible. Forinash et al (2004, p6) outlined that to optimise use, 'an office that has peak parking demand during the daytime hours, for example, can share the same pool of parking spaces with a restaurant whose demand peaks in the evening'. Shared parking 'encourages use of large centralized parking facilities and discourages the development of many small facilities. This results in more efficient traffic flow because there are fewer curb cuts, and turning opportunities on main thoroughfares. This has the added benefit of reducing accidents and reducing emissions from idling vehicles stuck in traffic' (Forinash, 2004, p6). The different types of parking that are demanded at different times of the day to facilitate shared parking are presented in Table 2.2.

Table 2.2 – Typical parking periods for various land uses

Weekday	Evening	Weekend
Banks and public services	Auditoriums	Religious institutions
Offices and other employment centres	Bars and dance halls	Parks
Park & Ride facilities	Meeting halls	Shops and malls
Schools, day care centres and colleges	Restaurants	
Factories and distribution centres	Theatres	
Medical clinics	Hotels	
Professional services		

Source: Litman (2013)

In summary therefore, encouraging private parking suppliers to share their facilities can reduce the land use designated to parking in an area which reduces the costs as well as delivering other improvements such as reduced urban sprawl. Moreover, if parking charges are also introduced for the use of such parking facilities, it can generate additional revenue for the parking provider.

Cost of Parking at the Organisation

Local authorities can also manage existing and potential future private off-street parking by 'furnishing providers with information on the parking problem and in particular details on just how expensive it is to provide and maintain each car parking space' (Enoch and Ison, 2005, p4). By providing details on the

true cost of parking, local authorities hope that organisations will charge their employees for parking and if possible set the price of the parking they supply at the market cost based on construction, maintenance, security, land and operation costs. This approach is in hope that it will appeal to an organisations 'commercial rationale' of charging for a business cost (Enoch and Ison, 2005, p4).

In addition to providing information on the cost side of the parking, local authorities may promote the use of 'telecommuting and/or flexible work schedules' to employers in order to encourage employees to work at home to reduce the need to travel to work and therefore parking required (Forinash et al, 2004, p7). Another way local authorities can attempt to reduce the parking required at the workplace is to encourage employers to implement vehicle trip reduction programs. Table 2.3 highlights some measures that employers may use to encourage a reduction in the number of vehicle trips to their workplace site.

Table 2.3 – Measures to reduce vehicle trips to the workplace

Measure	Description
Guaranteed ride home	Services that allow employees who use public transport to get a free ride home (for example a taxi) if they miss their bus or if they need to stay at work late
Company fleet cars	Cars that can be used for running errands during the work day
Preferential parking	Parking reserved for vanpools/carpools in desirable locations
Ride matching service	Facilitating car pools by identifying people who live close to one another

Source: Adapted from Forinash et al (2004)

2.5.2 Regulation

This section will discuss the regulatory measures that can be used to manage parking. First it will cover measures used by local authorities and will be followed by the approaches that can be used to address privately controlled parking.

First, local authorities can implement restrictions or reduce the amount of parking available at a specific location in order to make car use less attractive (Verhoef et al, 2005). If this approach is adopted however, improvements with respect to alternative means of travelling to a given location are required to ensure motorists remain attracted to that area. One such improvement is the second regulatory measure; park-and-ride (P&R).

P&R is usually adopted by local authorities when faced with a parking problem such as a lack of parking supply, congestion, a desire to discourage certain types of parking such as commuters or to reduce traffic related emissions particularly in the centre of an urban area (IHT, 2005, p71). P&R sites 'are found around 4km from the urban core, close to main corridor routes' and are designed to attract motorists 'with pleasant surroundings, and often, on-site facilities such as waiting areas' (Meek et al, 2010, p372). 'High quality buses operate at high frequency, generally between 8-15 minutes in peak periods [and] only one or two stops are usually made to minimise journey time' (Meek et al, 2010, p372). These considerations are intended to increase the attractiveness of P&R in an attempt to encourage use. An overarching objective for P&R is therefore to reduce car use in urban areas as well as to reduce the effect of parking on the land use in the centre of towns.

Although the effectiveness of local authorities' parking strategies are limited due to a lack of control over private parking, regulatory measures have been introduced around the world to influence this type of parking (IHT, 2005). Although these schemes differ, they all have the same purpose of 'general travel demand management' (RAC, 2012, p104).

Following the recognition of the problems associated with minimum parking requirements, 'most cities in Western countries recently began to consider the problems caused by the abundance of car parking spaces through limiting this requirement' (Al-Fouzan, 2012, p202). In response to these problems Governments instead adopted maximum parking standards for any new developments as 'a way to promote sustainable development' (Al-Fouzan, 2012, p203). In the UK, the Department for Transport (DfT) tackled the problem of minimum parking requirements by ensuring new developments generate a travel plan for their site in order for planning permission to be granted; this travel plan needs to have a view towards sustainability (Enoch and Ison, 2004; DfT, 2002). This has meant developers are required to understand how people will travel to and from the site as well as an increased focus on the parking available on-site and in the immediate surrounding area based on the estimated demand. The DfT (2002, p71) viewed the control of car parking to be 'key to an effective travel plan' which has meant there is a greater focus on parking availability and the impact of the traffic generated by the site on the surrounding road network. In addition, the DfT (2002, p26) recognised 'the changing characteristics of parking and [that] parking management impacts will also inform future policy'. To this end, whilst maximum parking standards and the need for a travel plan will reduce the significance of problems associated with private parking in the future, the issue of existing private off-street parking remains.

To address this, a number of regulatory measures have been introduced globally. To control general public parking, a Parking Freeze Plan was introduced in the City of Boston, US in 1976. This policy limited the number of parking spaces in the Downtown area of Boston and was later extended to cover other areas of the city. The freeze was introduced to address the growing concerns of air pollution and applied to commercial spaces available to the general public (Cormier et al, 2007). This meant residential, employee and customer parking for specific buildings were exempt from the freeze. The Parking Freeze Plan created a physical cap on the number of parking places in the area with a set number of parking places available in a 'bank' for modifications for existing or new developments; this limited the number of spaces for the whole area. The Air Pollution Control Commission was responsible for approving any application or modification for parking places (Cormier et al, 2007). In 1975 Portland, US also introduced a cap on the number of parking places in its downtown area although this number was subsequently increased in the 1980's to accommodate additional demand (Enoch and Ison, 2004).

In addition, the Parking Place Ownership Law in Japan was introduced to control residential parking by ensuring a parking place was available for all new vehicles. This measure required residents interested in purchasing a vehicle to obtain a certificate to prove they owned a parking place within 2 kilometres of their home before purchasing a new vehicle to ensure it could be stored when not in use (Enoch and Ison, 2004). This measure was introduced in 1958 due to space issues in high density areas and meant the limited number of parking places, restricted vehicle ownership and therefore car use.

2.5.3 Fiscal

Similar to the last section, fiscal measures for managing Local Authority controlled parking will first be described and will be followed by fiscal measures that can be used to address privately controlled parking.

Verhoef et al (1995, p141) suggested that in addition to 'physical restrictions on parking space supply' local authorities can introduce 'regulatory parking fees'. This is because by increasing the cost of parking it deters motorists from using the parking space as the benefit of driving is reduced due to the increased cost (RAC, 2012; Rye et al, 2008); this can apply to on-street and off-street parking. If parking charges are introduced however, there needs to be synergy between the prices in the area for different types of parking. This is because Millard-Ball et al (2014, p76) identified that 'if off-street parking is provided at a higher cost than on-street alternatives, drivers rationally choose to cruise, driving the increased need for curb management'.

To manage this demand for on-street parking and reduce cruising for parking, the City of San Francisco, US has introduced *SF Park*. Under *SF Park*, parking prices 'are regularly adjusted in an attempt to bring average occupancy within the target range of 60-80%' (Millard-Ball et al, 2014, p79). If occupancy levels are too low, the cost is reduced and if occupancy levels are too high the price is increased. Pierce and Shoup (2013, p80) suggested that *SF Park* is an innovative parking policy and if it is successful, 'other cities can then adopt their own versions of performance-parking prices'.

In order to exert some control over private parking, local authorities can introduce parking taxes which have the dual effect of making parking more expensive as well as raising revenue. Parking taxes often impose a charge, normally in the form of a percentage, on paid-for parking and are common in US cities (Litman, 2013).

In addition to parking taxes, 'Cash-out' programmes have been introduced in order to reduce car use and require employers to offer staff the option of a cash allowance equal to the cost of providing a parking space for each employee (Shoup, 1997b). The Santa Monica, US, 'Cash-out' scheme applied to all employers with 50 or more employees and all staff were eligible for the cash-out. This meant employees could either continue to use the parking space and not receive the cash-out sum, or receive the cash-out and pay for parking themselves or find alternative means for commuting.

Alternatively, parking levies place a set charge on certain types of parking either area wide or in a specific part of a city. The type of parking that is affected is decided by Government or the local authority and includes workplace parking, all private non-residential parking or simply all the parking within a certain cordon; parking levies can therefore apply to local authority and privately controlled parking. It is the property owner or tenant's responsibility to pay the levy although some or all of the cost may be passed on to motorists and in some cases is encouraged (Hamer et al, 2011). To improve the equity and acceptance of the scheme, certain groups can be made exempt such as disabled parking, parking for emergency vehicles or smaller employers with parking spaces below a certain number. Indeed Enoch and Ison (2005) identified that opposition to parking levies can be minimised if they include targeted exemptions, are simple to understand and if the link between the introduction of the levy and the public transport improvements are heavily promoted.

Currently there are five parking levies; three in Australia, one in Singapore and one in the UK. The reasons why parking levies have been introduced include reducing car use and managing traffic levels, to encourage public transport, to improve air quality, to raise revenue and to change the make-up of

vehicles travelling to a city by discouraging commuters through increased prices for long stay parking (Enoch and Ison, 2005; Transport for NSW, 2013; Enoch, 2001; Hamer et al, 2011). In Australia and UK, the revenue is hypothecated for local transport improvements whilst in Singapore the revenue is used for general Government funds. The cost of the levy varies between locations and ranges from £6 to £1,335 per year per parking space. This low figure is slightly misleading as the importance of this levy has been reduced as it has been superseded by a road pricing scheme; prior to the road pricing scheme the cost was £358 per annum.

2.5.4 Summary

In summary various measures have been identified for managing parking. For new developments, changes have been made to limit the amount of proposed parking at future sites. Policies that address general public parking as well as residential parking have also been outlined. The most interesting finding is the numerous objectives parking levies can achieve particularly in addressing the problem area of free workplace parking. Despite this, there is very little information on the recently introduced WPL in Nottingham. This was identified to be an area of interesting enquiry. In addition to these findings, it was also highlighted that as many urban areas share many problems associated with parking, it would be beneficial for locations to learn from the implementation of successful policies elsewhere (Pierce and Shoup, 2013; Litman, 2013).

2.6 Decision Making and Implementation

Prior to implementation, policy makers are required to decide on the measure that is to be adopted. Ison (2004, p58) described decision making as 'the process by which authorities adopt a particular course of action or non-action'. Decision making is to ensure the right policy is chosen to achieve the desired objectives as 'successful implementation relies on clear, precise and unambiguous decision making' (Ison, 2004, p59). This is because policies fail if the wrong measure is introduced to achieve the desired objective even if it is implemented flawlessly. To minimise the issues therefore, careful consideration is required at the policy design stage to understand any potential problems that may occur during implementation (Ison, 2004).

When implementing a new parking policy the reasons for the scheme are likely to influence the acceptance. This is because there are issues with the acceptance of parking policies designed to curb car use because 'parking policy is a sensitive area for employers, the retail sector, residents and thus

politicians' (Ison and Rye, 2006, p445). For this reason Ison (2014, p14) identified that 'parking policy is a complex and controversial issue, and one in which incremental change is more likely to gain public and political acceptance than large step changes'. Furthermore, small improvements can deliver large benefits as congestion is 'an example of non-linear behaviour, in which even a small reduction in vehicles at a given time – 10 percent or less – can have a big effect on traffic flow' (Markoff, 2012, p1). Markoff (2012, p1) therefore argued that due to this non-linear effect and the revenue that can be generated if people continue to drive and pay, 'you don't have to change everyone's behaviour [from a parking policy]; in fact, it's better if you don't' (Markoff, 2012, p1).

In addition to local authorities using parking policies there has also been an increased interest from certain organisations to introduce parking charges; common examples include airports, hospitals and universities (Rye and Ison, 2005, Ison et al, 2007). Despite this, the following section will primarily focus on the difficulties and benefits of implementing parking measures introduced by local authorities.

2.6.1 Political Considerations

Acutt and Dodgson (1997, p27) stated that the 'administrative complexity [of parking policies], especially compared to ERP [Electronic Road Pricing], is low' which mean parking policies can be introduced in a shorter time-scale. Parking policies also have low capital requirements and operational costs as 'parking charges are relatively straightforward to collect' (Acutt and Dodgson, 1997, p27).

A further benefit is that parking policies are often described as easier and more politically acceptable to introduce as a measure to reduce car use. This is because Qian et al (2011, p869) suggested that introducing parking policies 'can be less controversial [than road pricing], since drivers are already accustomed to paying for parking'. This is because the concept of paying for parking is historically embedded which mean motorists understand and accept that they pay a price to receive a space for their vehicle for an allotted time. The concept however for paying for road space via a RUC is not as well established amongst motorists which can reduce the acceptance of RUC in comparison to parking measures (Albert and Mahalel, 2006).

Despite this, one of the major problems for local authorities interested in reducing car use is the acceptability of proposed schemes. A further political difficulty is that 'politicians who spend money on transport projects are unlikely to reap major tangible benefits within a single term of office – and thus the temptation is to spend on other sectors where improvements can be delivered more quickly' (Enoch

et al, 2004, p33). For this reason, unless a political party is stable, politicians are unlikely to see transport investment as an attractive proposition. This however, can lead to significant under-investment over time if transport funding is continuously neglected.

A further political problem was highlighted by Rye et al (2008, p393) as it was stated that 'in terms of the formulation of policy, media coverage can impact on public perception "painting" parking policy as being one of simply generating revenue and restricting access'. This negative media portrayal requires local authorities to manage these negative perceptions in order to improve public acceptance if a parking policy is introduced. This can be achieved by undertaking a consultation which 'can aid in implementing often difficult policy initiatives that are likely to impact on public opinion' (Rye et al, 2008, p394).

A consultation with key stakeholders can ease the implementation process and improve acceptance. This is particularly so if there are clear objectives of why parking policies are being introduced and if motorists perceive there to be a significant issue that needs addressing; this is because the issue can act as a 'catalyst for change' (Rye and Ison, 2005, p60). Despite this, whilst a consultation period can help, Rye and Ison (2005, p64) outline that all is unlikely to be resolved and that at some point you will need to 'bite the bullet' and introduce the scheme if change is deemed necessary to solve the 'problem' on the basis that if the problem improves, then the 'opposition will reduce'.

2.6.2 Design Considerations

In addition to the political considerations, the way in which schemes are designed can also impact acceptance. This is because Rye and Ison (2005, p64) suggested that consideration is required for who will be exempt from paying the charges but highlight the importance that the 'exemptions that are made are justified by clear and transparent criteria'. It was also identified that few exemptions which are clear and easily defined are best as 'once you start building up a whole raft of exemptions the whole system becomes very difficult' (Rye and Ison, 2005, p62).

Exemptions however, can be useful for improving the equity of such schemes. This is because there is an equity concern if a flat parking charge is introduced at the workplace based on affordability for lower income earners. Baldassare et al (1998) identified that introducing parking charges affects lower income earners and younger drivers more than other groups which can affect political acceptance as motorists from lower socio-economic groups bear a greater burden. For this reason, Rye and Ison

(2005) argued employers should base parking charges for employees on income; thus higher income earners pay a higher charge. Although this improves equity, it increases the complexity of the scheme and can have a negative impact on staff recruitment and retention for senior managers on higher incomes. This is because Ison et al (2007, p163) found that for organisations, employee parking is 'one of the most emotive subjects there possibly is in employee relations' as it can affect staff retention, recruitment and relations. Other equity concerns are raised based on whether there are realistic substitutes for getting to work if the car is not used, as well as the need by certain employees for driving to work, such as if the journey is combined with dropping children at school (RAC, 2012).

The acceptance of a parking policy can be further improved if the revenue is hypothecated to deliver a benefit where the charge is introduced. Despite this, there are both advantages and disadvantages associated with hypothecation. First, Deran (1965) suggested that hypothecation applies the benefit theory of taxation by improving local transport from the use of money raised from transport activities. It also supports long term planning and improvements as there is a constant revenue stream; this is an important facet for transport development. Another reason for hypothecation is to achieve an environmental benefit by using the revenue to fund environmental improvements (Ison, 2004).

Despite the benefits of hypothecation, Deran (1965) also identified several criticisms. The first is that hypothecation can cause ineffective budgetary control and lead to a misallocation of funds; this can lead to different functions becoming either over or under financed. Further issues include inflexibility of revenue use due to legislation protecting the funds as well as the revenue remaining ring-fenced long after the initial need for the money has passed. Despite these criticisms, hypothecation is seen to be positive if the revenue is used to address the original problem in which the policy was introduced for.

The use of the revenue from the hypothecated parking charges should address the problem the charges were introduced to address and is therefore dependent on the type of provider. For example a local authority may use the revenue to provide public transport subsidy, invest in transport infrastructure or to improve existing facilities whilst an organisation may use the revenue to improve the parking experience on site by improving security through the introduction of CCTV or lighting, or by installing barriers to ensure that spaces are always available for motorists with authorised access to the car park (Rye and Ison, 2005). This is important because investment can improve acceptance as it provides 'a visible sign of the money being spent which is particularly important for car users' and is 'an important facet of introducing such a charge' (Rye and Ison, 2005, p62).

A further consideration is with respect to whether local authorities and Government design and introduce a parking policy to directly or indirectly affect the user. This because Enoch (2014) suggested that parking policies can directly affect users such as the introduction of on-street parking charges or indirectly by charging parking providers via parking taxes or a parking levy whereby the cost may or may not be passed on to the user.

2.6.3 Summary

In summary, parking measures have been identified to be less complex and cheaper to implement and operate compared to measures such as road pricing. Parking charges can also be hypothecated which can improve acceptance if the funds are used to address the problem the parking charges were introduced for.

Parking policies are more likely to be accepted if those affected by the proposal recognise the issue in which the policy aims to address and the objectives are clear and simple to understand. Despite this, all opposition will not be reduced and although some exemptions can be made to improve the equity of a scheme, it is suggested the number of exemptions should be minimised to reduce the administrative complexity. What's more, consideration is required for a consultation period to communicate the scheme as well as recognise the potential impact the media can have on the public's perceptions. Finally, the greatest concern identified for local authorities is the political issue of introducing a scheme that may increase the cost of motoring. This is because it was identified to be easier to make incremental changes to parking policies than large step changes and that any scheme is likely to be unpopular with voters, particularly as the benefits are unlikely to be felt in a single term of office. Despite this, it was identified that small reductions in car use can have a large benefits due to the non-linear relationship between congestion and reduction in car use.

Moreover, it is also of interest to understand if there is a likely difference between the acceptance and effectiveness of parking policies that have a direct impact on the user compared with measures that may have an indirect impact on the user by impacting the parking provider. However as previously identified, a lack of control over private parking has meant the effectiveness of local authority parking strategies are limited. This is compounded by the reluctance of organisations to introduce parking charges because of the potential negative impact of charging staff.

2.7 Policy Evaluation

This final section will evaluate the effectiveness of various parking policies. The section will be structured in a similar way to the Policy Formulation section and will therefore cover information and exhortation; regulatory and fiscal measures. Once more the focus will primarily be on measures that address privately controlled parking.

2.7.1 Information and Exhortation

Local authorities can encourage private parking providers to share parking due to variations in demand for parking at different times of the day as well as to encourage employers to charge staff for parking at the workplace by furnishing providers with the true cost of parking. As commuters have historically experienced free parking however, introducing or increasing parking charges at the workplace is often seen as unfair and is therefore unpopular with business. This is because Shoup (2005, pp591-592) argued that parking feels like 'a right rather than a privilege' and that it would feel 'not just wrong but illegal to suggest drivers should pay market prices for parking', particularly at the workplace.

To this end, whilst encouraging car sharing as well as furnishing private parking operators with information is an attractive method for local authorities to attempt to manage private parking and an acceptable approach for employers, it has a low effectiveness of generating change (Enoch and Ison, 2004). This is because employees view parking as a right which make employers reluctant to become unpopular with their staff by removing or increasing the cost of parking.

2.7.2 Regulation

First, this section will cover parking that is controlled by local authorities. Whilst the availability of free parking can be seen to increase the attractiveness of a location (Rye et al, 2008), the issues associated with excessive parking highlighted in this chapter have meant that maximum parking requirements are now preferred to minimum parking requirements in many western cities (Al-Fouzan, 2012). This is in part because Weinberger (2012, p94) found that 'there is little evidence to suggest that parking restraint in town centres is a major contributor to economic decline' and instead an abundance of parking tracks closely with economic decline (Garrick and McCahill, 2009).

Despite this, Verhoef et al (1995) stated that if the supply of parking is reduced, it not only affects commuters but also visitors and shopping traffic. This is because it makes it difficult for all motorists to

find a parking space which can have a negative effect on urban vitality (Marsden, 2006) and can lead to cruising for parking as motorists may be unable to find a parking space (Shoup, 2005). For this reason, Verhoef et al (1995) suggested that increasing the cost for parking is more advantageous compared with reducing the supply; this will be covered in section 2.7.3.

Despite this view, a local authority may want to reduce parking in the urban centre and therefore shift where motorists park. To achieve this, P&R can be introduced at the periphery of urban centres with Table 2.4 presenting the advantages and disadvantages of P&R.

Table 2.4 – Advantages and Disadvantages of Park and Ride

Advantages	Disadvantages
Increasing the volume of visitors to a centre without increasing parking in the centre	They may encourage people to drive part of the way instead of taking public transport all the way
Enabling a centre to serve a regional or sub regional catchment area that is predominantly car-dependent, without having to accommodate the cars in the centre itself	The car park may take land within the walking catchment of public transport stations or stops, thus pushing development further away
Enabling a reduction of parking in a centre relocating it to areas with lower land value and/or lower environmental sustainability	Car parks located at the edge-of-town or out-of-town may be environmentally intrusive, and may create pressure for car based development
Can serve a centre with high parking charges and/or limited parking supply	Can encourage people to drive to a P&R site, rather than use public transport to reach an alternative centre

Source: Adapted from IHT (2005, p 71)

One issue with P&R however is that although it may reduce traffic in city centres, car use can increase as travellers who would otherwise make the whole trip by public transport may instead choose to drive to the fringe of the city to use P&R (Meek et al, 2008; RAC, 2012). However, P&R can be effective at reducing the provision of parking in urban centres and can be used to increase the volume of visitors without increasing the quantity of parking in the urban centre. P&R can also be used to encourage commuters to change how they travel as journeys associated with P&R are typically associated with longer duration visits (RAC, 2012). However in order to change commuters travel behaviour, a deterrent for driving may also be required.

To address the issues caused by the high percentage of private parking in urban areas, local authorities now have increased control over proposed developments. By requiring developers to implement travel plans at new sites, it ensures the amount of parking is designed based on the

availability of parking in the local area, public transport availability and the estimated demand from staff. This is expected to reduce the land allocated to parking in urban areas which can increase urban density as land becomes used for more productive purposes; this can make walking, cycling and public transport more attractive which will have a positive impact on both congestion and the environment. This however had no impact on existing privately controlled parking.

To address this, Boston introduced a Parking Freeze plan which placed a physical limit on the total number of parking spaces, including privately controlled, in urban areas. The Boston Parking Freeze was introduced in order to address air pollution problems, to reduce the number of vehicle miles travelled in the city by limiting parking and to delay commuters from driving until after the rush hour (Cormier et al, 2007). Allard et al (2001, p1) stated that 'the premise is simple: decreased parking availability results in decreased traffic volumes, while use of public transportation is increased and air quality is improved'. Despite this, the Boston scheme has had mixed results, in part because certain premise, such as certain employers have been made exempt. For this reason, Cormier et al (2007, pvi) found that whilst 'the policy has been effective in getting some commuters to go to work later in the day' the reduction in parking has meant drivers have queued up 'idling their engines waiting for a parking spot'. This has reduced the effectiveness of addressing the air pollution problems.

Specifically to address private residential parking in Japan, a Parking Place Ownership Law was introduced which meant prospective car owners were required to have a parking space before they purchased a vehicle. Due to the cost of land, the scheme has effectively meant only wealthy residents can afford to purchase a parking space and has therefore been effective at curbing car use.

2.7.3 Fiscal

Verhoef et al (1995) argued there are three advantages of increasing the cost of parking as opposed to reducing the supply. The first argument is that by charging the market price, it will ensure a space will always be available if the motorist is prepared to pay the cost. Shoup (2005, p595) argued that charging the market price for parking will benefit all as 'drivers can still park; they just have to pay'. SF *park* has attempted to reduce cruising by varying the price of on-street parking based on demand and 'has reduced cruising for parking by about 50%' which indicates the benefit of charging the market price (Millard-Ball et al, 2014). Moreover, Pierce and Shoup (2013, p80) argued that 'SF *park* has shown that parking pricing is relatively simple and cheap [and that] cities can adopt programs like SF *park* even if they do not yet have all the resources and political will to adopt congestion pricing'. Despite this, the

novel nature of SF *park* was highlighted as a concern as Pierce and Shoup (2013, p80) stated 'unfamiliarity may explain some scepticism about performance parking prices, and only the experience gained in pilot programs will change minds'. This indicates that unfamiliarity may lead to negativity and that policies are likely to be more attractive once pilot schemes have been introduced.

The second reason is an efficiency problem on the basis that increasing the cost of the parking closer to the market cost, ensures people with a higher value of time have parking available when required (Verhoef et al, 1995). Despite this economic approach towards willingness-to-pay based on the value of time, Hamer et al (2011) raised equity concerns as members of different classes are affected differently. Pierce and Shoup (2013, p79) argued however that 'using curb-parking revenue to pay for local public services is much fairer than keeping curb parking free, losing the revenue needed to pay for public services, creating chaotic parking problems on busy streets, and increasing traffic congestion caused by drivers who are searching for free parking. Claiming that performance-parking prices will harm the poor defends a narrow special interest by feigning a concern for the broad public interest'.

The third benefit is that the price of parking can be differentiated depending on the length of time spent in a particular place. Parking pricing can be structured to ensure parking is cheaper for shorter stays to attract visitors and shoppers and more expensive for longer stays to discourage commuters; this can be used to help retail commerce (Bonsall and Young, 2010). Furthermore, any revenue from the parking charges can deliver further benefits, something which is not attained if parking supply is reduced.

However, if the cost of the parking is increased, consideration is required for the cost set by local authority's competitors such as private operators and neighbouring cities. This is because competitors may have a different strategy to the local authority which could mean motorists change where they park instead of paying the increased cost which could mean a local authority's objectives are not achieved. Local authorities also need to consider locations where motorists may instead park in their area on the basis that if a charge is introduced, motorists may search for other nearby free parking to avoid the charge which can reduce the effectiveness of the policy and lead to issues such as cruising. For this reason Litman (2013) described several ways in which spill-over can be managed including furnishing motorists with information on where they can and cannot park, regulations such as time limits or permit programs favouring a specific user or through pricing to encourage or discourage certain groups.

A common fiscal measure in the US which has been used to address all paid-for parking in an area is a parking tax which has the effect of making parking more expensive to discourage car use. Examples

include San Francisco, Los Angeles, Chicago, New York City, Baltimore, Washington DC, Pittsburgh (all US) and Vancouver (Canada) (Ulberg et al, 1992 and KT Analytics, 1995, Litman, 2013). Whilst the tax rate varies between cities, parking taxes can raise significant amounts of revenue. For example, in San Francisco in 1970 a 25% tax was introduced on all commercial parking and today currently raises nearly \$US50 million each year (Enoch and Ison, 2004). Whilst the revenue was originally used as additional Government revenue (Kulash, 1974), since 1993, 40% of the revenue raised from the charges goes directly into the Municipal Transportation Fund which is attractive as it can be used to achieve wider objectives. Despite this, parking that is provided free of charge or is bundled up in a leasing agreement is exempt from the tax which has meant parking taxes have little impact on free workplace parking.

Prior to introducing a sales tax on parking transactions, Vancouver had a Parking Site Tax which placed a charge on non-residential parking based on the size of the parking. Introduced in 2006, this tax placed an annual charge of \$1.02 per square meter, typically \$25-40 per space, although it was abandoned and replaced by the parking transaction tax one year later following criticism from suburban businesses (Litman, 2013).

'Cash-out' schemes have also been used to target a reduction in commuter car. The 'Cash-out' scheme in Santa Monica, California requires employers with 50 or more employees to offer staff the option of a cash allowance equal to the subsidy cost to the employer of providing each parking space for their employees (Shoup, 1997b). This scheme therefore allows commuters to consider the full costs associated with driving to the workplace including the cost of parking. Although it was recognised that the scheme contributed to a reduction in trips and a reduction in emissions as required by the Clean Air Laws, a list of criteria exempting employers meant that not all employers were affected. For an employer to be affected by the program they cannot own their own parking, parking for employees must be subsidised, the number of parking places that they lease can be reduced without a penalty, and the parking cost must be able to be calculated and therefore not bundled up within the lease cost of a building (Enoch and Ison, 2004). Although these exemptions were introduced to make the scheme equitable, it reduced the benefits of the scheme as many businesses were exempt.

In addition to taxation, parking levies can also be used to raise revenue and address the issue of private parking. The parking that is affected is dependent on the scheme; in Melbourne the charge applies to all types of parking, in Sydney only certain business districts are liable, whilst in Perth exemptions apply to residents and businesses with five or fewer parking spaces. The most expensive

levy was in Sydney as the annual charge was £1,335 per space which is hypothecated specifically to improve infrastructure and for maintenance purposes and not to subsidise services; this ensures the money is spent on infrastructure to achieve a long term investment. The schemes in Australia and UK have ring fenced the revenue to improve transport alternatives in attempt to encourage more sustainable travel; this has the added benefit of delivering an environmental improvement.

Enoch and Ison (2005, p12) however identified a concern with the 'beggar my neighbour' effect in that employers may be 'encouraged to re-locate either to out-of-town locations, or to neighbouring towns that do not impose the levy to cut costs'. With regard to the impact of parking levies a common theme is the importance of the hypothecation of all or a portion of the revenue to subsidise or fund public transport improvements (Enoch and Ison, 2005; Parking and Traffic Consultants, 2011). The impact on congestion however is mixed. Two examples suggest parking levies have had no or little impact on car use (Property Council Australia, 2004; Enoch and Ison, 2005) whilst others have seen 'a significant reduction in the number of people travelling to the city by car' (Hamer et al, 2011, p14). Moreover, Enoch (2001) found that in one location there was a 10% reduction in the number of parking spaces in the first year which led to an increase in the availability of public short stay parking which although unpopular with commuters has led to an increase in visitors and shoppers. Furthermore despite a 10 fold increase in the cost per space in Perth over the past 12 years, the number of licensed spaces has remained relatively stable (Parking and Traffic Consultants, 2011). It was also identified that to maximise the effectiveness of the levy, it was important to pass the increased parking costs on to the motorists (Hamer et al, 2011).

Despite this information on the Australian schemes; there is very little coverage on the WPL in Nottingham. Moreover, the benefits associated with parking levies with respect to addressing private parking at the workplace makes understanding the impact of parking levies outside Australia an area of interest for further research. This is particularly importance because of the significant impact free workplace parking has on peak period congestion.

2.7.4 Summary

Although this section has described a number of parking policies, the schemes are often limited to certain locations due to the legislation required for an authority to introduce a scheme. Parking levies have been identified to have had relative success as they allow authorities to address the issues associated with free workplace parking. The importance of this is emphasised due to the influence free

workplace parking has on peak period congestion. Moreover, the revenue that has been generated from the schemes in Australia was also identified to deliver significant benefits.

Pierce and Shoup (2013) also provided an indication that pilot schemes could be expected to make schemes more familiar and therefore acceptable to other authorities. Proof of this could be demonstrated by the fact three cities in Australia now have parking levies (and a recently proposed scheme in Adelaide) as well as the introduction of the first parking levy in the UK. This is important because of the common problems associated with a lack of control over private parking for local authorities and therefore the potential to transfer this policy to other locations. This is because 'the issues of congestion and traffic-related pollution in urban areas of the UK are likely to remain a problem for the foreseeable future and continued research and education are required in terms of the relative merits of the various policy options. Equally, a package of measures incorporating both the market and non-market based approaches are likely to be required in order to achieve significant improvements' (Ison and Wall, 2003, p142). However, whilst it is thought the WPL can deliver a package of measures, there is an absence of research with respect to the Nottingham scheme which has therefore been identified as an area of interesting further research. This is to understand the introduction of the WPL in Nottingham as well as the potential wider role parking levies may have in the UK.

2.8 Chapter Summary

This chapter has provided an overview of what parking is as well as its link to car use. The issues associated with parking have been highlighted as well as review of the types of parking that exist. It has described how parking policies traditionally encouraged private developers to provide off-street parking to prevent vehicles congestion the road network whilst trying to identify a parking space but ultimately have led to issues greater than the they were designed to solve. This has meant the number of parking spaces have been limited in the urban areas in recent years due to the influence parking has on car use as well as the environmental and land use impacts caused by the supply of parking. This has meant local authorities have increasingly changed the price and availability of parking in order to influence car use. However, a lack of control over private non-residential parking has reduced the effectiveness of parking strategies.

To this end, various measures have been introduced to address the issues of private parking and include parking taxes, parking freezes as well as parking levies. In the UK, local authorities have the power to introduce a WPL which would mean employers would have to pay for the parking they provide

for their staff. However, only one authority has introduced such a scheme and there is lack of research with respect to views of local authorities as well as the implementation, operation and impact of such a scheme. To this end, in addition to the two research questions proposed in Chapter 1, this chapter has given rise to a further four research questions. These are:

Research Question 3:

For what reason(s) might local authorities implement a WPL?

Research Question 4:

To what extent can a WPL be deemed to be more appropriate than alternative transport policy options as an urban transport policy instrument?

Research Question 5:

What are the issues associated with the design and implementation of a WPL scheme?

Research Question 6:

What are the likely impacts of a WPL scheme?

The next chapter will explore the theoretical underpinning that will be used for this thesis. The findings will help structure this thesis and will be used to support the analysis of the role parking policies may have in the future of UK policy making.

Chapter Three: Theoretical Framework

3.1 Introduction

The purpose of this chapter is to outline the theoretical approach used to underpin this thesis. The theory has been chosen based on the findings in chapter 2 where it was identified that issues parking policies can solve, such as congestion, are common problems for many locations and there is therefore scope for authorities to share ideas and learn from one another. As Nottingham is the first and to-date only local authority to introduce a WPL, the likelihood of other UK authorities adopting a WPL was highlighted as a key area for further research. For this reason Policy Transfer was chosen to underpin this thesis providing a framework for understanding the movement of policies and ideas as well as how one location can learn from another.

Learning lessons from other locations is not new. Rose (2005, p1) highlighted that 'more than 2,300 years ago Aristotle studied the different ways in which Greek cities governed themselves in order to learn how to create the best political system....[and] the authors of the American constitution looked to Europe for lessons'. This chapter will therefore assess the literature associated with the movement of policies and lesson learning, as to understand how Policy Transfer has emerged in its current form.

The early literature linked to Policy Transfer stems from the USA where work was carried out 'to explain the adoption of policy and the spread of diffusion throughout [the] federal system' (Stone, 2004, p546). To this end, the Policy Diffusion literature will first be reviewed (Section 3.2) and will be followed by Lesson Drawing (Section 3.3). Section 3.4 will then assess the Policy Transfer literature and will be presented using the initial framework developed by Dolowitz and Marsh (1996; 2000). A brief discussion of the future direction of Policy Transfer and a State of the Art review will then be made and will be followed by a summary and the reasons why Policy Transfer was adopted as an underpinning for this thesis; this will include the final research questions.

3.2 Policy Diffusion

Braun and Gilardi (2006, p299) defined Policy Diffusion 'as a process where choices are interdependent, that is, where the choice of a government influences the choices made by others and, conversely, the choice of a government is influenced by the choices made by others'. Shipan and Volden (2008, p841) identified that whilst policy innovation can come from within a polity, 'pressure for policy innovations also can come from outside the polity, with the spread of innovations from one government to another'. The purpose of Policy Diffusion therefore, is to understand how one government's policies influence another government's policy decisions.

Although it is stated that diffusion occurs between governments, Policy Diffusion is a term that was historically associated as being 'internal' as it frequently described the spread of policies within a nation due to regional clustering. Much of the early work was based in the USA and the diffusion of policies between states and cities (Walker, 1969; Gray, 1973). The federal system in the US had the view that 'subnational governments may serve as laboratories of democracy, where they experiment with different policies and learn from one another' (Shipan and Volden, 2008, p840). National governments could therefore gain an understanding of the impact of a policy by giving subnational governments power to introduce policies or undertake 'trials'.

For Policy Diffusion to occur, increased decentralisation is required so that local governments can introduce policies, as a 'trial', which other local governments can then learn from. A problem with devolution however, is 'lower-level governments may compete with one another in ways that are not mutually beneficial, or may adopt policies with negative externalities felt by others' (Shipan and Volden, 2008, p854). If local governments compete against each other, they may differentiate themselves to improve their local area which may not lead to mutually beneficial actions or an overall welfare gain.

Since this early work was undertaken, the world is connected 'as never before, and those connections structure the policy opportunities and constraints faced by policy makers at the local, regional, state, national and international levels' (Shipan and Volden, 2012, p788). Therefore policies can become diffused across international boundaries as the world becomes more interconnected. This interconnectivity can lead to policy makers relying 'on examples and insights from those who have experimented with policies...about the impact that the policies of others will have on their own jurisdictions' (Shipan and Volden, 2012, p788).

Whilst the policy diffusion literature provides ‘evidence that policies do diffuse, much less is understood about the specific mechanisms that cause a policy to spread from [one] government to another’ (Shipan and Volden, 2008, p841). This is because Policy Diffusion ‘uses quantitative techniques to analyse a large number of cases to produce generalizations’ (Marsh and Sharman, 2009, p270). As this provides no understanding as to the reasons why a government adopted a policy from a specific location, nothing is learnt with respect to why policies diffuse. In an attempt to understand this, Shipan and Volden (2008) identified four mechanisms to categorise the diffusion of policies (Table 3.1).

Table 3.1 – Four mechanisms of Diffusion

Mechanism	Details
Learning	Governments observe policies from other locations and use that experience to introduce their own policies based on what they have learnt. The more successful the policy is perceived, the more likely the policy will be adopted. Weaknesses include the difficulty of understanding the success of the policy and the context differences between the ‘lender’ and ‘adopting’ location.
Economic Competition	Occurs when there is a financial incentive or disincentive for adopting a policy. For example, if a Government is likely to experience a negative impact if it introduces a policy alone, then the policy is less likely to be adopted. If however there are benefits, such as financial gains, then the policy is more likely to be adopted.
Imitation	Understanding what actions and/or policies an authority has made so that another authority can copy them in order to appear similar. Whilst similar to learning, imitation focuses on the actor as opposed to the action or policy. For example a smaller city adopting similar policies to a larger, more attractive city in order to appear similar.
Coercion	Occurs when a government is encouraged or pressured to adopt a policy in order to obtain external benefits such as trade practices, economic sanctions, or grants for policy innovations. More common at the vertical level such as between federal governments and states; or international institutions such as the EU and member states. Benefits may not necessarily be directly linked to the policy the government has been coerced to introduce.

Source: Shipan and Volden (2008, 2012); Allen, Pettus and Hairder-Markel (2004); Karch (2006)

The mechanism of diffusion is therefore dependent on the reason why a policy was adopted. Whilst Policy Diffusion assesses the mechanisms of the movement, Dolowitz and Marsh (1996) claimed it is something that occurs with the absence of agents. Whilst these claims are rejected by some scholars

(Lee and Strang; Newmark, 2002), Marsh and Sharman (2009, p274) argued that 'the diffusion literature tends to emphasize structural explanation, while in contrast, the transfer process places more emphasis on agency'. Although Diffusion Theory does mention the role of agents, 'given the methodology adopted [quantitative analysis], it is difficult to provide any indicators of agency effect and impossible to take account of the meanings agents, whether leaders or electors, attach to these structural variables' (Marsh and Sharman, 2009, p274).

What's more, a review of policy diffusion found that the 'major problem of this research tradition is that it reveals nothing about the content of new policies...its fascination is with process not substance' (Clark, 1985, p63). Indeed Stone (2012, p485) suggested policies are 'presumed to be contagious rather than the end result of political interactions' and are associated with 'large "n" analyses whereas the transfer literature more often undertakes qualitative case studies'. Therefore although Policy Diffusion highlights where and how policies move, it does not identify why or describe the details of the transfer especially with regard to the actors. Dolowitz and Marsh (1996, p345) therefore highlighted 'it was as a result of this perceived need to answer questions ignored by diffusion studies that comparative policy analysts began discussing lesson drawing and policy transfer'.

3.3 Lesson Drawing

Lesson drawing was a term coined by Richard Rose (1991, p3) to address 'under what circumstance and to what extent can a programme that is effective in one place transfer to another.' This is an important question as although governments believe they have a unique problem, in reality problems are shared. For this reason, Rose (1991, p3) stated that:

'Confronted with a common problem, policymakers in cities, regional governments and nations can learn from how their counterparts elsewhere respond. More than that, it raises the possibility that policymakers can draw lessons that will help them deal better with their own problems. If the lesson is positive, a policy that works is transferred, with suitable adaptations. If it is negative, observers learn what not to do from watching the mistakes of others.'

Lesson drawing is a voluntary process which 'starts with scanning programmes in effect elsewhere, and ends with the prospective evaluation of what would happen if a programme already in effect elsewhere were transferred here in future' (Rose, 1991, p3). Lesson drawing describes how lessons can be both positive and negative and can be learnt both geographically (in other locations) as well as through time

(policies from the past). One issue with lesson drawing which has led to it being criticised was its 'implicit assumptions' (Bulmer et al, 2007, p13) 'that the drawing process was both rational and voluntary' (Benson and Jordan, 2011, 367). This is because as policy making is not always rational and voluntary, lesson drawing cannot be applied to all policy making where lessons are learnt.

It was further criticised as being too simple as it did not consider the complex nature of the transfer process which could often involve multiple polities (Dolowitz and Marsh, 1996). These flaws therefore meant that a new framework was required to encompass coercive transfer and consider the complexities associated with the movement of policies. Despite its drawbacks, lesson drawing provided the foundation for the Policy Transfer framework which is described in the next section.

3.4 Policy Transfer

In order to develop a suitable framework, Dolowitz and Marsh (1996) reviewed the existing 'policy transfer' literature and 'provide[d] a context for integrating common research concerns of scholars of domestic, comparative and international politics' (Evans and Davies, 1999, p362). Policy Transfer is therefore not new but instead 'represent[ed] a more coherent framework for thinking about what is an old practice' (Stone, 1999, p58) and provided 'a general framework of heterogeneous concepts including policy diffusion, policy convergence, policy learning and lesson drawing under the umbrella heading of policy transfer' (Evans and Davies, 1999, p363).

Despite this, Policy Transfer is sometimes not seen as an umbrella heading. Hoyt (2006) suggested that Policy Transfer literature shares similarities with lesson drawing and therefore the terms are often used interchangeably along with other phrases such as policy borrowing (Cox, 1999), policy shopping (Freeman, 1999), policy band-wagoning (Ikenberry, 1990) and systematically pinching ideas (Schneider and Ingram, 1998). Dolowitz and Marsh (1996) however sought to refute this, as it was stated that these terms were not interchangeable and Policy Transfer was its own unique area of research. This is because policy making is not always a rational or voluntary process and a framework was therefore required to consider when policies are pushed or even forced on to another polity (Dolowitz and Marsh, 1996). To this end, Stone (1999, p52) highlighted that 'Policy Transfer is the broader concept encompassing ideas of diffusion and coercion as well as the voluntaristic activity of lesson-drawing'.

Despite this, there are many different interpretations of what is construed as Policy Transfer which can often cause confusion (Benson and Jordan, 2011). A problem with the name 'is the implicit literalism in

the term 'Policy Transfer', which tends to suggest the importation of fully formed, off-the-shelf policies, when in fact the nature of this process is much more complex, selective, and multilateral (Peck and Theodore, 2001, p449). Dolowitz and Marsh (2012, p339) provided a definition which although 'contested, is the one most frequently cited'. That is 'a process in which knowledge about policies, administrative arrangements, institutions, etc. in one time and/or place is used in the development of policies, administrative arrangements and institutions in another time and/or place' (Dolowitz and Marsh, 1996, p344).

From the definition provided, it is implied that there are multiple dimensions which highlights the complexity of Policy Transfer. First, the use of policies, administrative arrangements, and institutions imply that the movement of knowledge cannot be confined to Policy (as the name implies) and that additional components can be transferred. Second, lessons are not limited to existing policies in other locations but also policies from history to help formulate new ideas. Finally, the movement of knowledge encompasses both positive and negative lessons.

The seminal article published 'by Dolowitz and Marsh (1996) can be regarded as a landmark in the development of the concept' of Policy Transfer (Benson and Jordan, 2011, p368). Indeed, the popularity of this framework is outlined by the fact the two articles published by Dolowitz and Marsh (1996; 2000) 'have attracted more than 2000 citations' (Marsh and Evans, 2012a, p587). To this end, the initial framework will be used to structure the description of Policy Transfer.

To provide a framework in which policy makers can follow so as to understand Policy Transfer and use for empirical research, Dolowitz and Marsh (1996, 2000) highlighted the key facets thus creating a framework. They outlined seven questions that underpin the transfer process for policies; these are -

1. Why do actors engage in Policy Transfer?
2. Who is involved in the Policy Transfer process?
3. What is transferred?
4. From where are lessons drawn?
5. What are the different degrees of transfer?
6. What restricts or facilitates the Policy Transfer process?
7. How successful is the policy that was transferred?

The seventh question was added in a follow-up paper in 2000 (Dolowitz and Marsh, 2000). Whilst this framework does not allow Policy Transfer to occur successfully, it provides guidance for understanding the movement of policies and the important areas for understanding the transfer (Stone, 1999).

3.4.1 Why do actors engage in Policy Transfer?

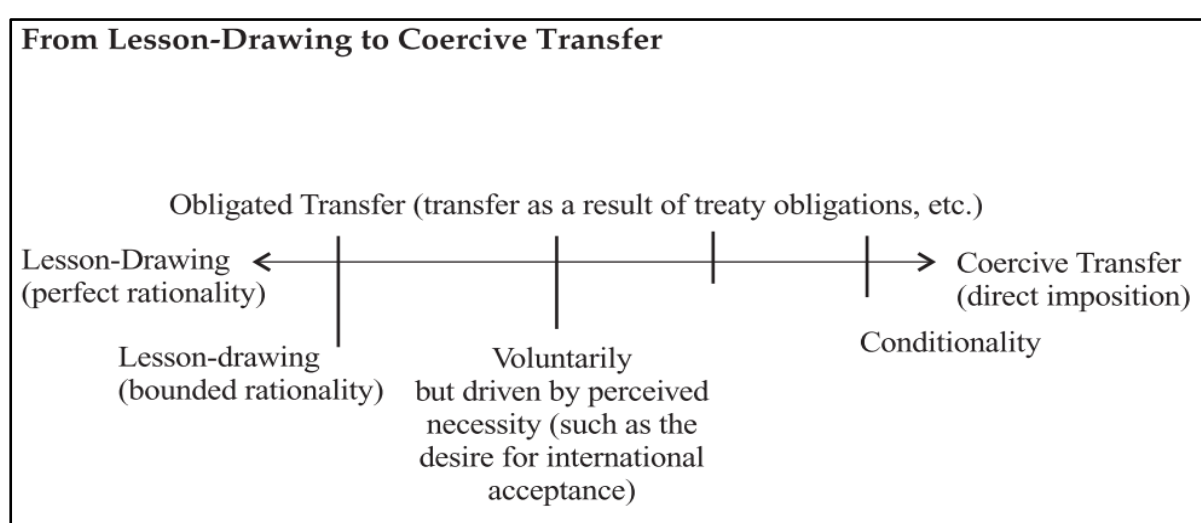
The reason actors engage in Policy Transfer is voluntary, coercive, or somewhere between the two. Voluntary Policy Transfer refers to a situation where there is dissatisfaction or a problem that requires solving which leads to policy makers attempting to identify a policy from another location or time to solve the issue (Rose, 2005; Marsden et al, 2012). Marsden and Stead (2011, p493) go on to say that politicians often see copying policies from elsewhere as a 'quick, cheap and/or simple' approach for solving problems as it negates the need to reinvent the wheel. Hoyt (2006, p224) supported this as it was stated that 'information and communication technologies, like the internet, allow urban policy entrepreneurs to save time and resources by importing "best practices" from other cities'.

Coercive transfer occurs when an authority or government is forced to adopt a new policy. This can be broken down further into 'direct coercive transfer denoting the forced transfer of a policy; and indirect coercive transfer resulting from transnational policy externalities and mutual interconnectedness between states' (Benson and Jordan, 2011, p370). Direct coercive transfer occurs 'when one government forces another to adopt a policy' (Dolowitz and Marsh, 1996, p347) and one example is when Supra-national institutions such as the EU impose policies on member states. Indirect coercive transfer occurs when 'the potential role of externalities, or functional interdependence' mean that countries adopt a similar policy because they perceive they may be falling behind a competing government (Dolowitz and Marsh, 1996, p348). Examples of this include how 'Canadians looked to America for lessons which could be used in drafting their environmental regulation' as well as the Swiss adopting similar policies to the EU, based on geographical location and inter-dependencies (Dolowitz and Marsh, 1996, p348).

Figure 3.1 presents a continuum for the different types of transfer and 'is a heuristic device that allows us to think more systematically about the processes involved' (Dolowitz and Marsh, 2000, p14). It extends from coercive transfer to perfectly rational lesson-drawing. Perfectly rational lesson drawing implies that actors search all policies available for addressing a particular problem before choosing one that is most suitable. However, Dolowitz and Marsh (2000, p14) suggested that perfect rationality is rare as most actors 'act with limited information, or within the confines of bounded rationality... [because]

actors are influenced by their perceptions of a decision-making situation rather than the “real” situation’. The evidence that is used to make a decision could be based on incorrect information with regard to the nature of the policy, its operation in the ‘lender’ location or differences between the context of the lender and borrower location. Finally, some “voluntary” policy making may be perceived necessary for international acceptance or to prevent falling behind a competitor, and therefore not voluntary in its purest sense but instead an ‘Obligated Transfer’ or ‘Conditionality’. Stone (2010) provided the example of ‘the activities of powerful states and/or international organisations such as the World Bank when they seek to impose their policies on other actors’ (Benson and Jordan, 2011, p370).

Figure 3.1 – Continuum of the different reasons for engaging in Policy Transfer



Source: Dolowitz and Marsh, 2000

In addition to this continuum, further research has been undertaken to understand why actors may draw upon Policy Transfer and includes ‘dissatisfaction among policy makers, public disquiet, perceptions of policy failure, political competition, [and] the need to legitimate particular policy actions and uncertainty’ (Benson and Jordan, 2011, p370). Therefore if policy makers are dissatisfied, ‘lessons/evidence from another jurisdiction, whether domestic or international, can be evaluated’ (Marsh and Evans, 2012a, p589) which indicates a rational process. Dissatisfaction however ‘usually results from a perception, either by the Government or the public, of policy failure... [which is a problem] because it assumes that policy failure is a non-contentious and easily measurable concept’ (Dolowitz and Marsh, 1996, p347). As this is not the case, it means policy problems are subjective based on the political actors and therefore only when the politicians identifies a problem is action forthcoming (Anderson, 1978).

Legitimizing particular policy actions was also a reason identified as to why policy actors may engage in Policy Transfer. Marsden et al (2012, p917) described this process as generating 'political buy-in to a preferred solution...or as part of the process for legitimizing a preferred technical solution'. 'For instance, a politician might only seek basic information that he or she can use to defend a position or support a colleague...[whilst] bureaucrats charged with implementing policies are more likely to become involved in the transfer process to learn about the detailed operations' (Dolowitz and Marsh, 2012, p341). This suggests that opposed to the rational approach, policy makers may first decide on a policy and then search for examples for support and justification. Marsh and Evans (2012a, p589) provided further evidence this is the case as they stated that 'governments might search for lessons from other jurisdictions that confirm their prejudices, thus partly explaining why policy transfer is often a quick fix, rather than a rational, thought-through process, based on a thorough consideration of evidence'

Certain projects were also identified as more likely to use Policy Transfer than others. This is because 'politically sensitive demand-management projects such as congestion charging and those with significant financial risk such as major public transport investments are typically associated with broader evidence of cross-comparative analysis' (Marsden et al, 2012, p917). Furthermore if there a nearby competing urban locations, a polity may be indirectly encouraged to adopt a policy similar to its neighbour if it is perceived that by doing nothing it could lead to them 'falling behind its neighbours or competitors' (Dolowitz and Marsh, 1996, p349).

3.4.2 Who is involved in the Policy Transfer process?

For Policy Transfer to occur, Dolowitz and Marsh (1996; 2000) identified nine actors involved in the process; these are elected officials, political parties, bureaucrats/civil servants, pressure groups, think tanks, policy entrepreneurs/experts, supra-national institutions, non-governmental organisations and consultants. Additional authors have since identified further groups who may also promote the transfer of policies; these include transnational advocacy networks (Stone, 2004), transnational philanthropic institutions (Stone, 2010), and epistemic communities (Dunlop, 2009).

Mackinnon et al (2008) highlighted the importance of understanding the role of the different actors within the policy process as certain groups are likely to have a greater influence on identifying, transferring and introducing policies. One example is the important role played by politicians for driving a policy as they are keen to introduce quick fix solutions to gain political popularity and therefore favour emulating or copying policies from elsewhere (Dolowitz and Marsh, 2000).

Policy experts are different to politicians in their approach because they generate a desire to introduce a favoured specific policy, however become restricted and influenced by the institutional structures which can hinder implementation (Bulmer and Padgett, 2005). Moreover, whilst political actors can influence governments to consider adopting certain policies, they need to 'avoid imposing their views or setting the agenda, even if they find it hard to suppress this urge' (Stead et al, 2008, p19). This is because 'information senders frequently shape the information they send to support their own objectives and to enhance the reputation of their own programs, activities, and policies' (Wolman and Page, 2002, p497) which can lead to bias.

Rose (1993) indicated the importance of policy entrepreneurs because of their desire to solve a problem as well as from a knowledge perspective with regard to understanding a policy. As entrepreneurs identify a problem, they generate a desire to build up a network of contacts, which is increasingly becoming international as global communications improve, to highlight various approaches to address an issue. Ison et al (2009, p9) indicated their importance as it was stated that 'without a policy entrepreneur, someone to drive the initiative then Policy Transfer may not "find root and develop"'.

Consultants are ever more important as 'it is becoming increasingly clear that policy-makers, at both the national international levels, are relying on the advice of consultants' (Dolowitz and Marsh, 2000, p10). Benefits of consultants is that they can lead to an expert in a particular policy whilst a drawback is that consultants 'tend to offer advice based upon what they regard as the 'best practice' elsewhere, often paying little attention to the particular context in the borrowing political system' (Dolowitz and Marsh, 2000, p10). Wolman and Page (2002, p498) questioned the usefulness of best practice guides and instead argue it would be 'easier to offer a compendium of practices and ideas and leave it up to the recipient to decide which the most appealing than to offer an evaluation of what works best, let alone what works best for highly differentiated audiences'.

Finally, the influence of supra-national institutions on Policy Transfer has increased in recent years as Radaelli (2000, p26) argued that the EU is a 'massive transfer platform' for dominant countries to transfer policies. As such there has been an increased amount of research in multiple disciplines in the EU; these include the environment (Jordan and Liefferink, 2004), transport (Rye et al, 2011) and foreign and energy policy (Bulmer et al, 2007).

3.4.3 What is transferred?

It would be incorrect to assume that Policy Transfer is confined solely to the transfer of an instrument from one location to another. This is because Dolowitz and Marsh (2000, p12) suggested that ‘almost anything can be transferred from one political system to another’ and can be categorised into nine different groups; these are policy goals, policy content, policy instruments, policy programs, institutions, ideologies, ideas, attitudes and negative lessons. Whilst all of these can be transferred, some are easier to transfer than others. Marsden and Stead (2011, p495) indicated that difficulties arise ‘where there are substantial differences in the local social, economic, political and institutional conditions between the policy ‘borrower’ and ‘lender’’. An OECD (2001) report tried to measure the levels of transferability for the different components which also included the visibility of the component being transferred; this is presented in Table 3.2.

Table 3.2 – The transferability and visibility of the different components for exchange

Visibility	Components for exchange	Transferability
Low	Ideas	Low
	Principles for action	
	Philosophy	
Medium	Methods	High
	Techniques	
	Know-how	
	Operating rules	
High	Programmes	Low
	Institutions	
	Modes of organisation	
	Practitioners	
	Joint projects	

Source – OECD, 2001

Table 3.2 indicates that ideas, principles of action and philosophies ‘have low visibility, since they can be difficult for the outside to fully understand and specify...[and are therefore] difficult to transfer, because it can be difficult for others to make relevant to their own situation or use actively in their own context’ (OECD, 2001, p34). Conversely components that have high visibility and are easier to

understand are more difficult to transfer because they are often specific to a region and therefore difficult to implement in a new context. Components with medium visibility were seen to be the most appropriate for transfer and include methods, techniques and operating rules.

Whilst the benefits of a policy are often recognised, it is equally important to identify and learn from any negative policies. For this reason lessons can be both positive and negative. In addition, Stone (2012, p486) identified that '[c]onsultants, 'parachute professors' and international (visiting) experts provide opportunity to see and hear about overseas experience'. This indicates that personnel can also be transferred and include short-term staff exchanges where an 'expert' visits to share knowledge. The other approach is for interested 'borrower' governments to 'go physically to see how other authorities approach things' to gain a greater understanding of the impact of a potential component for exchange (Wolman and Page, 2002, 487).

3.4.4 From where are lessons drawn?

The original framework suggested that lessons can be drawn from two different sources; endogenous and exogenous (Dolowitz and Marsh, 1996). This rationale was because actors will first seek policy innovations internally by examining previous policy successes and failures within their own domestic context which can offer insight into a greater number of policies and therefore should not be ignored. This is 'because a country's own past is a source of lessons where much, although by no means all, in the institutional structures and cultural values remains constant, making it a potentially useful source of evidence about what works, and what does not' (Marsh and Evans, 2012a, p590). Despite this, 'searching the past involves subjective evaluation... [which can be a problem because] while history is constant it is open to many interpretations and current situation's may not be truly analogous to past ones' (Dolowitz and Marsh, 1996, p352). For this reason, whilst it is useful in some circumstances, if no inspiration is attained actors may broaden their search to identify a policy by looking at foreign political systems with similar contexts or towards 'established innovators in a particular policy area' (Benson and Jordan, 2011, p371).

Traditionally, Policy Transfer has been associated with the international movement of policies as the literature refers to "countries" or "foreign models" (McCann, 2011). However, it cannot be solely limited to this form. Stone (1999, p53) identified that 'importantly, Policy Transfer occurs at the sub-national level; between states in federal systems and across local governments, municipalities and boroughs. Policies sometimes develop from particular local practices – either through pilot schemes (for example

drug trials) or the innovations of street level bureaucrats – and are transferred to other local areas or settings'. Should decentralisation and political structures support it, Policy Transfer should focus on cities because they 'have become increasingly important geographical targets and institutional laboratories for a variety of neoliberal policy experiments' (Brenner and Theodore, 2002, p368). This highlights the benefits of learning about a policy by running 'trials' in individual cities.

Although policy makers may look overseas in order to identify policies, specific countries or regions are often preferred. Marsden and Stead (2011, p495) highlighted these places are preferred because of the similarities associated with the 'language, culture, constitutional system, geographical proximity and economic structure'. This is because the more similar these factors are between the 'borrower' and 'lender' nation, the more likely the new policy could be expected to be a success. Indeed, Wolman and Page (2002, p497) stated that 'officials search for ideas primarily from their local and regional neighbours...[as] locally based examples offer information that is more readily available and more easily accessed'. It was also found that specifically for urban regeneration policies, that 'informal contacts with peers are the most trustful and useful sources of information' when trying to understand what does and does not work (Wolman and Page, 2002, p497).

Marsden et al (2012, p917) suggested that policy makers often rely on a network of trusted peers which 'are typically located in cities which have broadly similar sociocultural and institutional settings'. Policy Transfer could therefore be seen to be bounded to a policy-makers network group as 'personal networks of trusted contacts are overwhelmingly preferred as a means of seeking out lessons and potential transferability' (Marsden et al, 2012, p915). An example of transfer within a trusted peer network was provided by a study undertaken by Marsden et al (2012, p914) as it was highlighted that a respondent from Leeds Local Authority stated that when searching for new ideas 'what's probably more useful is the core cities [major metropolitan cities in England] network...if we've got an issue we'll probably run it through core cities and see what they're doing'. By using the network of core cities, it demonstrates how local authorities in the UK, search for ideas from contexts similar to their own. Other ways of identifying new policies and expanding networks is through conferences as it can lead to new contacts and allow new innovations to be identified and understood (McCann, 2011).

In relation to the direction in which policies transfer, authors have identified both horizontal and vertical. Cairney et al (2009) identified how policies have been transferred both upwards and downwards between national and sub-national institutions whilst Evans and Davies (1999), Betsill and Bulkeley (2004) and Bulkeley (2006) found evidence 'of horizontal learning between levels in different political

systems [as well as] within networks that transcend multiple scales and borders' (Benson and Jordan, 2011). To this end Policy Transfer is no longer confined to national governments as agents can not only link cities within the same country but also connect cities between different countries such as through international conferences (McCann 2011).

3.4.5 What are the different degrees of transfer?

Although Policy Transfer can be seen as absolute, either a location adopts a policy from elsewhere or not; there are different degrees depending on the similarities of the transfer. Indeed Wolman and Page (2002, p480) argued that whilst 'policy transfer does require utilization of knowledge drawn from the experience of others ... it does not require actual adoption'. Dolowitz and Marsh (1996) therefore identified four different degrees of Policy Transfer depending on the influence the lenders policy had on the policy implemented by the borrower; these are:

1. Copying – replicating a scheme implemented in one location and placing it in another location in its entirety (exact replication)
2. Emulation – not quite an exact replication of a scheme, but use of the ideas behind the policy or programmes as it is accepted the borrowers programme provides a good standard or starting point to build on for solving a problem
3. Hybridization and synthesis – this type of transfer is less of a direct replication and instead combines elements from various programmes to create a new policy that can be better moulded to address the problems of the location in the adopting country
4. Inspiration – is a situation where a solution to a problem is stimulated because of the identification of an issue in another location. This leads to the adopting country developing a solution which is unique and different to the lender's solution entirely.

The degree of transfer will be dependent on the similarities of the problem between the 'borrower' and 'lender' location as well as the perceived success of the policy. For example, copying may be a good option if the problem and the context in which the policy is planned to be introduced are similar. Indeed, Stone (1999, p52) highlighted that 'it is not unusual to see transferred institutions using the same name, wording in legislation or structural apparatus'. Marsden et al (2012, p906) identified however that 'the local context is crucial in the design of policies and that this makes direct copying both less likely to happen and less likely to succeed'. Stone (2012, p483) supported this claim by stating 'it is unusual to

observe straight-forward copying ... instead intermediaries 'mutate' policy ideas in a process of policy translation'.

Since these four original categories of transfer were developed, authors have added further terms to categorise other types of transfer. These include non-transfer, failed transfer and/or the transfer of negative lessons (Dolowitz and Marsh, 2000, p9). The reason for this is because 'policy learning is not synonymous with policy adoption; decision-makers can learn "negative lessons" where learning from the ideas that are diffused help crystallize what ideas and policy paths they do not wish to follow' (Dunlop, 2009, p307). The inclusion of these types of transfer have led to Benson and Jordan (2011, p371) arguing that 'there is a sense in which almost any form of knowledge transfer, be it negative or positive, could now be considered a form of Policy Transfer'.

3.4.6 What restricts or facilitates the Policy Transfer process?

As with any process, there are areas that can restrict or facilitate the practice. Rose (1991) developed six hypotheses that would improve the chances of a successful lesson drawing and these were subsequently used in the original Policy Transfer framework (Dolowitz and Marsh, 1996). These are:

1. A single goal to the programme
2. A simple problem which needs solving
3. A direct relationship between the problem and the solution
4. Fewer perceived side-effects
5. Detailed information available as to the operation of the programme
6. Outcomes which are easily predicted

Although this provided guidance for the optimum transfer, it is unlikely that all these criteria will be satisfied and therefore, like the framework, should only be used to assist policy makers.

In addition to these, Policy Transfer assumes actors are rational and have full knowledge of all policies. However, policy makers are restricted by time and resources as well as the search area to identify potential solutions. This bounded environment can limit the success of Policy Transfer as measures may not be identified and therefore considered. Marsden et al (2012, p916) provided support for this claim, as a respondent in the study highlighted that 'a common constraint [with Policy Transfer] was limited time to devote to learning activities'.

This limited time can stem from local authorities having a lack of resource to allow staff to search for policies as it can be seen as a time consuming and unproductive activity. McCann (2011, p43) argued that 'if travel, including policy travel, is to be understood as productive rather than 'dead' time, ethnographic research – being with delegations on trips elsewhere, in meetings, and on site – is needed...in order to better apprehend how exactly such time is productive for urban policy-making'.

Ison et al (2009) indicated the importance of identifying the vision and benefits of what a policy can achieve. Stead et al (2008, p18) highlighted that 'site visits help to create both ideas and inspiration about what alternatives can look like and how they might work in practice...[and] can help to develop confidence and reassurance that certain policies or actions can also work'. For this reason, policy makers are encouraged to visit the locations of the policies they are interested in as this activity can be crucial to ensure that any policy that is transferred is tailored to work in the new context in which it is introduced.

These visits however can be expensive. For this reason it is thought 'some cities are better equipped to learn from others ... because larger cities tend to have bigger and more professional governments ... [and are therefore] more capable of learning from others' (Shipan and Volden, 2008, p844). This suggests that larger authorities with a greater number of staff have a greater scope to explore and understand measures in place elsewhere and therefore more likely to transfer a policy from another locality. Indeed, Dolowitz and Marsh (1996, p354) suggested that '[p]olicy transfer is also dependent upon the transferring political system possessing the political, bureaucratic and economic resources to implement the policy'.

A temporal dimension is also seen to be important as certain periods provide opportunities for transfer. Stone (1999, p54) indicated that 'in terms of time, opportunities may arise with cyclical political events such as the election of a new government' which allows a transfer to take place. In addition to the cyclical political events, the existing policies and structures can influence the political activity. Rose (1993, p78) argued that the current, and indeed the past, policy making environment can influence future decisions as policies 'must be introduced into a policy environment dense with past commitments'. For this reason, when investigating a policy, consideration is required as to whether the existing policy framework and environment would allow the introduction of a policy or not. Stead et al (2008) categorised the institutional constraints into formal barriers such as rules and structures and informal constraints such as traditions and cultures. Another barrier is that if the legal framework to support the new policy does not exist, it can mean complex administrative processes to allow the co-

ordination of a new policy. The legal framework and institutional constraints therefore need to be considered.

A further temporal dimension is the time frame required to understand the impact of a policy. For example when trying to measure the 'political and policy consequences of an adoption, it may take months or years to evaluate the effectiveness of a particular policy' (Shipan and Volden, 2008, p844). This temporal element therefore affects the transferability as the impact of the policy first requires evaluating before an authority can decide whether to adopt or not. In addition, when an evaluation of a policy has taken place, 'the learning effect is unlikely to fade quickly – indeed, evidence of the effects of policies, once known are likely to remain relevant to policymakers for a considerable period of time' (Shipan and Volden, 2008, p844). This means that if a policy is evaluated and the lessons learnt are negative, this may act as a barrier to the policy being introduced, now and in the future. Finally, whilst a policy will be evaluated in order to understand its impact, the lessons that are learnt should be ongoing from the lenders context. This will mean that 'a city will continue to learn from other cities two or three years after those other cities have adopted a policy' (Shipan and Volden, 2008, p844) and will be even more relevant the more complex the policy is. This is because 'the greater its [a policy's] complexity the more difficult the Policy Transfer is likely to be and the less successful it may turn out' (Marsden and Stead, 2011, p495).

Even if a favourable policy is identified, the difference in context in which a policy may be introduced needs to be considered. Stead et al (2008, p18) identified that 'what works in one situation does not necessarily work in another: context is crucial. Policy Transfer requires the right combination of individuals, ideas, incentives and interests, and the time has to be right'. This is because if a polity 'find themselves without the leadership necessary to formulate a collective vision for the area; they lack the financial wherewithal necessary to operate...; or they face opposition from a significant proportion of the local property and business owners' (Hoyt, 2006, p221), the transfer of a policy becomes increasingly difficult. This was supported by Wolman and Page (2002, p484) as they stated that 'programs are locally made to deal with local problems' indicating that the problems of individual localities 'are so unique that there is not much to be learned from the experience of other local authorities'. Ison and Rye (2005) identified several issues that led to the failed transfer of RUC in Hong Kong and Cambridge. These included a lack of a policy champion, lack of public support based on the perceived severity of the problem in which the measure were introduced to tackle, timing of the introduction, clarity of the objective(s) and a clear and understandable presentation of the policy.

The process of searching for policies has become significantly easier in recent times with ‘the growth in global communication and increased networking between politicians and civil servants from different countries’ (Marsden and Stead, 2011, p493). This has allowed a greater number of policies to be identified using less resource. However, whilst the increased amount of information on the internet could be seen to be a benefit, the quality can be poor (Marsden et al, 2011).

3.4.7 How successful is the policy that was transferred?

The final question was added to the original framework by Dolowitz and Marsh (2000) in order to understand the success or failure of the transferred policy. The reason for its addition was to emphasise how it is sometimes wrongly assumed that even if a policy is a success in one location it does not mean it will be an automatic success in another. Three reasons were therefore highlighted as to why a transferred policy may fail (Table 3.3).

Table 3.3 – Reasons as to why Policy Transfer may fail

Reason for Fail	Description
Uninformed transfer	Where the borrowing country collects insufficient information with regard to the policy/institution and the operation of the scheme in the lending country
Incomplete transfer	Transfer may have occurred, however a crucial element which was key to ensuring its success in the lending country was missed which can lead to failure
Inappropriate transfer	Disregard for the differences between the two countries contexts can lead to failure. This can include economic, social, political and ideological factors.

Source - Dolowitz and Marsh, 2000

Uninformed and incomplete transfer is associated when the ‘borrower’ does not identify all elements or information of the policy from the ‘lender’ which means that what is being transferred is, in essence, not the same. Inappropriate transfer is when the context between the borrower and the lender are so different that the policy is not suitable for the policy borrower. For this reason, Marsh and Evans (2012b, p478) argued ‘if a transferred policy is to be effective, then the ownership of that policy by local communities is crucial’ in order to ensure that it fits the local context.

In order to understand what is successful, Bovens et al (2001, p20) argued that success or failure of policies is ‘dependent on temporal, spatial, cultural and political factors’. Furthermore as Dolowitz and Marsh (2012, p340) suggested ‘a policy can “succeed” on one dimension, or for one set of people,

while “failing” on another dimension, or for another set of people’. For example one dimension is that a policy may be successfully politically as the policy may have helped the political party get re-elected or it may be successful programmatically as it achieved its original objectives, but maybe not both. Another dimension is the temporal aspect in that a policy may be deemed a failure in the short term, however in the long term the policy could be regarded as a success. In addition, Marsh and McConnell (2010, p577) highlighted further issues as it is stated that ‘what is regarded as a success in one political system or political culture will not necessarily be regarded as success in another’. Furthermore the introduction of a policy may benefit one polity but may have a negative effect on another authority and therefore the success of the policy is dependent on the angle of assessment. Finally, it is worth noting that ‘a policy can be more or less successful ... [as it] may achieve some of its objectives but not others’ (Marsh and McConnell, 2010, p577) and therefore it is not a case of being successful or unsuccessful but instead somewhere along a continuum.

Marsh and Sharman (2009) argued however that there is not an accepted framework for assessing the success of a transferred policy. This view is supported by Marsden and Stead (2011) as it is stated that the literature ‘is relatively weak in its ability to fully demonstrate transfer and no studies have provided much evidence about the success of the policies transferred’. Subsequently, in the absence of evaluative techniques, Evans (2009) suggested the transfer should be separated into different sections so that each stage can be evaluated. These stages are pre-decision, decision process and post decision levels. Marsden and Stead (2011, p498) explained these stages as it was stated that ‘at a pre-decision-process level, policy learning can for example influence the nature of the debate...[a]t a decision-process level it can influence the design, evaluation and selection of options...[a]t a post-decision stage it can affect operational efficiency, policy outcomes and future learning processes.’

In summary therefore, with the current literature it can be difficult to understand the success of the transfer of a policy. This is because ‘the question of how to quantify the success of transfer is more difficult to answer than simply whether or not a policy achieved its objectives ... it requires an understanding of the extent to which the policy search led to the adoption of a genuinely new policy or to significant changes to the design or implementation of a proposal’ (Marsden and Stead, 2011, p498).

3.4.8 Where next for Policy Transfer?

Following the establishment of the original Policy Transfer framework (Dolowitz and Marsh 1996; 2000) and the subsequent developments, Benson and Jordan (2011) proposed the question as to where

Policy Transfer will go next. This is because Policy Transfer is now researched as a distinct and separate area of interest and therefore where it is likely to go next deserves attention. For this reason, Benson and Jordan (2011) outlined the following paths Policy Transfer could take; these are continual evolution, assimilation as it is used to frame other empirical work or into a period of decay.

In the early work, Dolowitz and Marsh (1996) described how further research was required to understand 'how and why' Policy Transfer happens. Although many of the original questions have been answered, these developments have subsequently led to additional questions that require further understanding. Thus, evolution is the first path Policy Transfer could adopt. This evolution of Policy Transfer will be achieved by providing additional evidence or support for existing areas of the theory (Rose, 2005). What more, Dolowitz and Marsh (2012, p344) indicated the importance of evolution as they state 'it is important that we continue to examine policy transfer because it is a common feature of contemporary policy making'.

Second is to use Policy Transfer to frame empirical work to develop a greater understanding of its application. This is because as Policy Transfer is being increasingly used as a framework to which empirical studies are pinned, it could be seen as an established framework. This is in part because of the many areas of research as well as different governance levels Policy Transfer has been applied to. These areas include 'social and welfare policy (Dolowitz et al., 2000; Pierson, 2003); crime (Jones and Newburn, 2006); public education (Bache and Taylor, 2003); development assistance (Stone, 2004); spatial and/or urban planning (De Jong and Edelenbos, 2007; Dolowitz and Medearis, 2009); utilities regulation (Bulmer et al., 2007; Padgett, 2003); environmental issues (Betsill and Bulkeley, 2004; Holzinger and Knill, 2008; Jordan et al, 2003; Smith, 2004); [transport (Marsden and Stead, 2011; Ison and Rye, 2005)]; and even the creative industries (Prince, 2010). These cases encompass a multiplicity of empirical contexts including the UK and the US (for example, Dolowitz, 2003; Jones and Newburn, 2006), as well as Europe (Bulmer et al., 2007), Australasia (Pierson, 2003; Prince, 2010) and Asia (Kwon, 2009)' (Benson and Jordan, 2011, p367).

Traditionally, Policy Transfer was associated with the movement of policies from one country to another. However from the research above, it 'has revealed new modes of (vertical and horizontal) inter-institutional transfer activity, extending well beyond traditional peer-to-peer networks of national governments' (Benson and Jordan, 2011, p375). This suggests Policy Transfer is no longer bound to national governments but instead there are additional actors allowing the transfer of information between different institutions and contexts. An additional benefit of the empirical research using Policy

Transfer is that the framework is used by policy makers not only to guide policy making, but also to 'stimulate policy innovation' (Benson and Jordan, 2011, p367). This is because policy makers are now encouraged to seek and learn from policies elsewhere.

The final possibility is that the research into Policy Transfer goes into decline as fewer people use it. However due to the popularity of Policy Transfer outlined by the number of disciplines and contexts the framework has been applied to, it is likely that it will be continued to be used by scholars. Although it is likely to be continually used, if future work is undertaken and authors try to evolve the theory further, 'the real challenge associated with the scenario of ever greater evolution is how to develop its analytical contribution without stretching it to the point where it reveals less and less about more and more ... [and therefore] evolution must go hand in hand with consolidation' (Benson and Jordan, 2011, p375).

3.4.9 Summary

Policy Transfer is about using 'knowledge about policy-making from one setting and applying it to another' (Marsden and Stead, 2011, p493) so lessons can be learnt in order to improve the efficiency of policy making. Policy Transfer however 'does not have full explanation and theory status...[as] this would require the development of a causal model based upon a series of propositions which may be validated or falsified by evidence' (Evans and Davies, 1999, p364). Instead, Dolowitz and Marsh (2012, p339) argued that their 'framework was intended as an heuristic, not a theory, and it stands or falls in relation to whether others find it useful for understanding/explaining aspects of the policy making process. In addition, like any heuristic, it has been, and should be, developed/improved by those who use it'.

Marsh and Sharman (2009, p276) indicated that 'in effect, it offers a series of questions that researchers can use to frame their empirical work; indeed, this is what has happened as there a number of empirical studies which, sometimes critically, use all or elements of this model to organize the research'. As the framework has been used by many authors, Dolowitz and Marsh (2012) argued that it has been a useful and popular framework. What more today, 'Policy Transfer is very much alive and kicking' (Benson and Jordan, 2012, p333).

Stead et al (2008) suggested that the Policy Transfer framework is an attractive proposition when introducing new policies, as it can provide clarity for issues of uncertainty and any subsequent problems. This is because lessons can be learnt from other locations where the policy exists to ease or

remove concerns. Policy Transfer can therefore be seen as a solution to policy problems negating the need to reinvent the wheel as policy makers can use what is happening in other locations to determine how to solve a problem (Stead et al, 2008). In addition, the number of places where solutions can be found has increased. This is because searching for policies abroad has become much 'easier than it was in the past because of the growth in all forms of communications; politicians and civil servants from different countries now meet more frequently, in bilateral as well as multi-lateral meetings' (Dolowitz and Marsh, 2000, p21). A major, and potentially fatal assumption however, is that the policy makers assume that if policies have been successful in one location then it must be the same case in their locality, this however is clearly not the case as consideration for the context is required. Moreover, the lessons that are learnt should not be solely limited to positive lessons from successful policies, as any negative lessons are equally as important in order to ensure that similar mistakes are not made.

In conclusion, Dolowitz and Marsh (2000, p21) stated that 'while the research presented here certainly supports the position that Policy Transfer is a useful explanatory variable, it clearly doesn't suggest that Policy Transfer is the sole explanation of any, let alone most, policy development. All we are suggesting is that an increasing amount of policy development, and particularly policy change, in contemporary polities is affected by Policy Transfer. As such, when we are analysing policy change we always need to ask the question: Is Policy Transfer involved?'

3.5 State of the Art Review of Policy Transfer

Following the review of the literature, interviews were undertaken with five recognised authors in the field of Policy Transfer. The purpose of these interviews was to provide clarification surrounding Policy Transfer and to generate more recent views. Since these interviews were undertaken however, Political Studies Review has published an issue (Political Studies Review, 2012) specifically on Policy Transfer (many of the articles are referenced in this chapter) which could be seen to lessen the requirement for the interviews that were undertaken and subsequent State of the Art Review. Despite this, some of the findings are both novel and significant and will therefore be presented.

Whilst the methodology has not yet been presented, section 4.6.1 provides further details as to the reasons why the interviews were undertaken and the type of interview that was used. All of the respondents have published work associated with Policy Transfer and Table 3.4 outlines their research field as well as how they will be referred to in this chapter.

Table 3.4 – Respondents area of research interest

Reference Code	Area of Research Interest
PT1	Environmental politics, policy and governance
PT2	Governance of spatial planning and transport policy
PT3	Public Sector Reform and Social Policy
PT4	Public administration and public policy; and Policy Analysis
PT5	Transport Governance

First, the origins of why Policy Transfer was developed will be addressed and will be followed with an outline the role agents have. The role of Policy Transfer in Policy Making will then be described before a review of how to measure Policy Transfer as well as the different levels of transfer.

3.5.1 Origin and Definitions

PT4 suggested that much of the early literature associated with Lesson Drawing and Policy Transfer developed from a desire *'to understand the impact and processes of globalisation on domestic policy formulation...and to create a common idiom for the transfer of policies'*. As the framework was developed to understand globalisation on domestic policy formulation, this is likely to have led to the traditional focus with respect to the transfer of policies between countries. However, other respondents stated that Policy Transfer was created to provide a standardised framework as PT1 stated that a *'problem with having lots of different concepts is it is very difficult to do precise analysis'* and therefore Policy Transfer *'was developed to draw different ideas and different concepts together to set out an analytical agenda which they [Dolowitz and Marsh] have obviously done well because it is extremely popular'*. These views therefore indicate that at the time the framework was developed, there were many different concepts for the movement of policies which made it difficult to analyse the processes as there was different terms in the literature for similar things. Dolowitz and Marsh (1996) therefore created a standardised framework that encompassed the different concepts.

This standardised framework could be seen to have been successful as four of the respondents referred to the definition described by Dolowitz and Marsh (1996) as how they view what is encompassed by Policy Transfer. Despite this, problems were highlighted with Policy Transfer being too vague as well as the issue of similar concepts being described in different ways. First, PT3 stated that Policy Transfer *'is a bucket into which a whole bunch of stuff has been thrown in'*. This view was also held by PT1 as they argued that *'the concept is being stretched by various academics'*. PT4

suggested that this is occurring because of the usefulness of the framework in being applied to many different disciplines. This has meant it has been used by academics who do not read all of the literature from the different disciplines and *'keep reinventing concepts rather than making the existing concept more robust'* (PT4). It is argued that these problems occur because careers are made on developing perceived new concepts rather than making existing concepts more robust. One example that is provided is the term 'policy assemblage' which is viewed by PT4 as a type of network.

This 'over stretching' of what Policy Transfer should include was a common frustration amongst the respondents on the basis that if *'policy transfer just keeps on expanding in different uses and different contexts, and people keep combining it with other theories it gets gradually stretched out and then suddenly everything becomes Policy Transfer'* (PT1). For this reason, the respondents suggested that future research need to better focus on consolidating the existing framework.

In addition to the Dolowitz and Marsh (1996) definition, the different respondents also gave their perspective on Policy Transfer. First, PT4 suggested that *'one of the reasons policy transfer takes place is because of the role and importance of ideas in politics'* to identify new ways to address problems. The same respondent also defined *'Policy Transfer as the remarkable diffusion of knowledge from one organisation in one country to another'* which implied that Policy Transfer is lessons between two nations. PT5 however defined it as *'the movement of ideas or policies through time and/or space from one place to another'*. This second definition does not specify international boundaries and instead the movement of ideas or policies from the past or a different place to another location. In addition to this, PT2 argued that it is not just policies but *'any policy related issues including institutions, arrangements, procedures etc. and so it is broader than just policy instruments'*. These varying responses therefore provide an indication of the differences in how Policy Transfer is viewed.

When the respondents provided their views with respect to Policy Transfer, many of them stated their view of what Policy Diffusion was and what it wasn't. Whilst PT4 saw Policy Diffusion as the *'movement of ideas within a country'*, the other respondents perceived the differences to be nothing to do with boundaries. This is because PT5 argued that *'Policy Transfer is about how policies move from one place to another and has a very strong interest in the agents and the detail, whereas Policy Diffusion is recording what moves from where to where'*. For this reason it is thought that Policy Transfer can occur within a nation and is interested in the details of the movement of a policy and the involvement of agents.

3.5.2 Role of Agents

Agents were identified by all the respondents to be important and were identified to have two roles in the Policy Transfer process. First, PT2 argued that *'actors are the crucial part of the PT process as they pick up on different ideas and examples from elsewhere and are responsible and instrumental in bringing them to the attention of people in their own authority or policy making realm'*. This first example is therefore associated with searching for policies and occurs for three reasons. One reason is that *'politicians are under a lot of pressure to get quick wins and because citizens expect more from government than ever before they look for successful examples elsewhere, so rather than thinking in a rational process about how to actually deal with a particular policy problem, the natural reflex is to reach out to other political systems they share something in common with and steal success stories'* (PT4). This is supported by PT3 as it is stated that politicians *'want to do something quickly to be seen as a mover and shaker to allow them to move on upwards'*. The second reason is that *'there might be pressure for policy makers to adopt things that have been seen to be successful somewhere else'* (PT5). This suggests that if policies are identified to be successful in another government, there may be pressure from the public or think tanks for the implementation of similar policies. The third reason is for politicians to legitimise policies. PT3 indicated that when actors are searching for policies, *'they are often not searching for new ideas, instead they are using things that they perceive to be successful in other countries as legitimacy for a policy they are trying to introduce without necessarily understanding what is going on elsewhere'*.

The second role agents play in Policy Transfer is that actors *'proclaim what they are doing and almost actively market or sell their ideas as a solution to a problem'* (PT2); this often leads to policies that are described as best practice. However PT2 argued that *'a lot of best practice originates without a lot of substantiation or empirical evidence and primarily exist, to put it crudely, because people are good at shouting about their policy'*. However, it was indicated that there must be some value in best practice guides on the basis that there are so many which mean *'there must be some belief in the idea of presenting examples from elsewhere to influence policy change'* (PT2). Despite this, PT stated that best practices are *'context dependent and therefore should be described as practice elsewhere rather than best practice'*. These views therefore indicate the influence actors can have on the transfer process if they *'market'* a particular policy as best practice.

3.5.3 Policy Transfer in Policy Making

The rational policy making process indicates policy makers undertake research and evaluate a number of different solutions to the problem(s) they are trying to solve (PT4). Alternatively PT1 described the garbage can model which suggests *'it is all complete chaos and is probably more accurate'* description of what occurs. This policy making process suggests that a big problem occurs that could lead to public outrage and leads to policy makers searching for policies to introduce in order to address a problem or legitimise a previously identified solution. However, the context needs to be considered to ensure the policy is appropriate for the new location (PT1).

When searching for policies, the respondents identified two different sources. The most popular source outlined by the respondents was the networks of the policy makers. PT2 stated *'if people are looking for ideas of how policy could change then people will use their own network first which might be through conferences for practitioners or government events'*. Despite this, it was suggested that certain levels of governments may be better suited for searching for policies. This is because it was identified that central government has a civil service that can monitor overseas policies. An example of this is provided by PT4 where it is stated *'senior policy advisors in Australia or New Zealand, or the US and Canada, will have the same [internet] favourites, they go to the same places, they exchange ideas, and all the permanent secretaries of all the departmental heads of all western democracies meet every two months, so its embedded in the norms and values of policy making'*. In contrast to this it was highlighted to be more difficult for local governments to understand policy developments in other authorities if partnerships do not exist or if they are not afforded time to search or evaluate (PT3). In addition to this, PT3 also highlighted that some officials for local authorities may be *'fantastic at public speaking and actively try and sell their policies to other local authorities'* as a best practice, this is therefore another way in which Policy Transfer may occur.

The second source, which is seen to not be as important in policy developments as networks, is searching the internet. When respondents discussed the internet, both advantages and disadvantages were highlighted. This is because whilst *'there is more information, there is also possibly an overload of information that is not screened or filtered of which policy makers have to deal with'* (PT2). For this reason it was described by PT1 as a *'useful tool for researchers and policy makers in terms of generating ideas but there still needs to be some analytical research before policy makers actually introduce a policy'*. With regards to the role of the internet in the future, PT3 indicated that they thought the internet might play a greater role for *'cash-strapped local authorities'* interesting in understanding

how a policy works. One issue with this however, is that it is *'so easy to go to a news site and dig out every instance of complaints'* of a policy opposed to finding positive stories. For this reason, PT5 indicated the importance of visiting places to see the policy as it is more important to understand the *'implicit knowledge and not the explicit knowledge'*.

A further disadvantage with the internet is that if a policy is going to be transferred, the context differences between the borrower and the lender requires understanding and consideration. This is to avoid the positivist view of *'if it works in one location it should work anywhere, any time, and therefore we can take this idea and slap it down in another context and it will work'* (PT3). This is because although *'there are lots of lessons that can be learned and are being learned all the time, being aware of the constraints and differences between the "borrower" and "lender" is really important because very rarely do things get copied precisely, instead they are always subject to quite a lot of modification'* (PT1).

With regard to the importance of Policy Transfer in general policy making, PT2 indicated that whilst *'Policy Transfer is one of the factors you have to take into account when policy changes, it is not the only thing that influences why policy changes'*. However, PT4 stated that the question is no longer if Policy Transfer is being used for policy making as they suggested that Policy Transfer was the *'norm'* for policy development. This is because PT4 suggested that Policy Transfer is *'omnipresent'* and the question is now focused to ensure that when transfer occurs, that the context is considered to avoid inappropriate transfer.

PT3 argued that policy making should be *'based on the best research and evidence and if policy transfer is one of those things'*, then it should be used. The general consensus however was that Policy Transfer will be increasingly used as *'governments are going to have to reduce the scope of their activities, which means local government will have to pick up some of the work with reduced resources and they will have new policies that work and they will have to learn from one another'*. However, should a local authority be interested in transferring a policy, if the objective of what the policy is trying to achieve is different the policy will look very different. This is because PT3 suggested that *'motives are important in all of this and if you introduce a policy for environmental reasons, you will end up with a very different policy to if you were doing it for revenue or alleviating congestion'*.

Most Policy Transfers however, *'tend to be hybrids, meaning that they are drawing policies from a number of different places combining those with lessons from their own context and what emerges from*

that process is an adaptation' (PT4). This therefore suggests that when governments seek to learn lessons, they often identify lessons from a number of different policies to form an adapted version combining aspects from multiple policies.

For Policy Transfer to be increasingly used in the future, PT4 suggests that it needs *'to be made more useful to practitioners and therefore it is important it identify new tools for evaluating or measuring success, as well as there needs to be more of an integration of the literature on evidence based policy making with policy transfer'*.

A common constraint of Policy Transfer is a financial limitation within government to be able to explore or introduce a policy. PT5 described the example of Leeds where *'they wanted a tram but they couldn't as there wasn't enough money, so they wanted to transfer a tram but instead they have got trolley buses, a mass transit system of some sort, but resources determined which one'*. An additional constraint is trying to understand what preconditions are required before a policy is implemented. PT3 provided an example linked to parking as they argue that if a *'precondition for charging people for private parking is adequate public transport infrastructure, you then have to work out what is meant by adequate public transport and it becomes difficult and context specific'*. This therefore indicates the difficulties in ensuring that a policy is introduced into a similar setting if there is a desire to copy a policy.

3.5.4 Measuring Policy Transfer

A topic which gained a lot of interest from the respondents was how to measure Policy Transfer as well as how to prove that it has occurred. PT4 indicated that *'if you don't have an inside perspective of implementation, how do you know what has and hasn't been transferred...; that is why the qualitative side is absolutely crucial for understanding Policy Transfer'*. PT1 supported these claims as it was stated that *'I think it is hard to prove Policy Transfer has occurred unless you can interview someone who is a policy maker who says that we took this policy from Y...particularly when all the ideas are so readily available on the internet'*. This therefore emphasises the importance of undertaking qualitative research to understand the role of Policy Transfer with respect to the implementation of a policy.

Despite this, difficulties were highlighted with undertaking interviews to identify Policy Transfer. First, is the view that *'if the transfer works, politicians will claim credit for it and won't admit they stole it from somewhere else, but if it fails they will say but it worked there and I am therefore not to blame'* (PT3). Second, is the view that *'as it is qualitative evidence you rely on people's opinions and quite often what*

you find is that people have different opinions on how things actually happened' (PT2). PT4 supported this claim by stating that *'academics would be more cynical about success, politicians would be more optimistic as they are making their own legacy and the civil servants would be more objective'*. PT1 also indicated that it would be easier to track Policy Transfer at the local level on the basis that at the 'macro or international level it is much more difficult as any policy process will have quite a lot of people involved from the initial idea to the final policy and so a lot of things will be added which will make it difficult to track precisely'. This is supported by PT3 as it is claimed that it is *'impossible to understand Policy Transfer unless you can get the right people for the whole process to describe the pathways of how it was implemented'*. If interviews cannot be undertaken with the relevant respondents, PT3 suggested that *'documents can provide indication transfer has occurred, as paragraphs that describe the legislation can be remarkably similar although ideally interviews are gold'*.

A further problem was highlighted by PT4 as it was stated that *'organisations are really containers for ideas and some of those ideas don't find their political moment, but they continue to reside in political organisations waiting for the right political moment so consequently a lot of the things that you think are associated with policy transfer aren't actually, they are ideas that have been around for a long time and they have been waiting around for the right political moment so one of the major problems with policy transfer is the methodological one in how you prove policy transfer has occurred'*. This indicates the difficulty of identifying the relevant actors if a policy is not implemented when the policy is first identified.

3.5.5 Levels of Transfer

Although it has previously identified that transfer is associated with the movement of policies between two nations, the respondents highlighted additional levels and additional transfers. First, PT1 argued that *'at the international level, it is often quite difficult to move policy directly between countries because of the contexts but as you move down the scale to regional, local to individual level, we know you can transfer knowledge quite well between individuals as we all email and go to conferences and there is a vast transfer of ideas at that level and the friction of transfer at these levels is reduced'*. PT3 supported this as it is stated that *'the bigger the scale, the more difficult the notion of transfer becomes and instead becomes an adaptation very quickly as you are required to bolt the policy on to existing infrastructure, ideologies, and existing government structures'*. This therefore indicates that the smaller the transfer agent, the easier it is to share ideas.

It was therefore identified that there is an increase in the sharing of knowledge between cities. PT1 provided an example of *'the international network for cities for climate change initiative, where cities in countries like the US, Australia were frustrated with government inaction and climate change policy and so made a network of cities from other countries such as in Europe and they all share information and ideas, completely bypassing national government using information technologies and internet to exchange ideas, as well as conferences where they discuss ideas'*.

This type of transfer between cities is an area in which many of the respondents highlighted as an area in which the Policy Transfer literature could grow. PT1 stated that *'instances of transfer horizontally at local authority level would be a really interesting addition to the literature'*. Furthermore, PT3 argued that *'local authority transfer could be really interesting and genuine policy transfer opposed to this very loose stuff that appears between countries. So perhaps the right way it to look at this within countries rather than between countries and I think that might be really interesting; and in an era where you think central government are acknowledging their limits because they have got no money, policy transfer may tie in very much into that agenda if we are going to pass stuff down to the local level increasingly then there is scope to transfer'*.

Another type of transfer that was highlighted was the movement of staff. At the international level, PT4 indicated that civil servants sometimes move temporarily between countries that share the same language or are similar culturally which can provide an indication that there is a transfer of knowledge. In addition, PT3 indicated that at the local authority level *'it will be interesting to see if local authorities head hunt experts to introduce a policy who have previously introduced a policy in a different council'*.

3.5.6 Summary

The findings from these interviews have provided a more detailed review of Policy Transfer. It found that although the Policy Transfer framework was developed to encompass different concepts into a single analytical framework, due to its popularity and its application to many different disciplines it has become increasingly stretched where many things are now encompassed as Policy Transfer. For this reason, the respondents argued that future work should be focused to consolidate the existing research. Despite this, the respondents suggested the framework could be expanded with respect to the transfer of policies between cities and local authorities both globally as well within a single nation. In addition to the differences in how Policy Transfer is viewed amongst disciplines and researchers, PT3 stated that *'one of the key parts of a PhD is to say that whilst there is all this stuff which I know about, my PhD*

is about this and sticking to that, because otherwise you are trying to answer something which political scientists have been trying to answer for decades'.

The respondents also highlighted the importance the role of agents play in the transfer process. This is both with respect to searching for a policy to solve a problem or to justify a policy already chosen, as well as actors who actively market or sell a particular policy. The ideas for the transfer of policies are primarily identified through policy makers trusted networks and to a lesser extent by using the internet. Whilst the internet was seen to have plenty of ideas and policies, it was also identified to have an abundance of unfiltered information that would be of little interest alone and would therefore require additional evaluation and/or site visits once an idea was identified. Moreover, whilst Policy Transfer is viewed by the respondents as common practice in policy making, it was suggested to be constrained by financial restrictions and a lack of time to explore what policies are available.

The penultimate area which was addressed was the difficulty of understanding if Policy Transfer had occurred due to the complexity of policy making. This is on the basis that without interviews with key policy makers, it is difficult to understand exactly how a policy developed as well as the difference in opinion if multiple people were involved. For this reason it was suggested to be easier to understand the transfer of policies the lower the level of governance. For example, complex policies transferred across international boundaries would be difficult to understand where as the transfer of an idea between two people within a network is more likely to be identified. In addition it was also identified that at lowest level two people can transfer ideas with respect to policies as well as the physical transfer of a person from one government to another to aid the implementation of a transferred policy. The final consideration was a methodological one in that it was indicated that qualitative methods, such as interviews, were best in order to identify if Policy Transfer took place.

3.6 Chapter Summary

At the beginning of this chapter, the early literature associated with the movement of policies was assessed. First, it presented the Policy Diffusion literature which was developed to understand how policies moved in the US; however this literature failed to understand the role of agents or the reasons why policies moved. Richard Rose then developed lesson drawing which described a process of identifying and learning information about a policy in another location that a policy maker was interested in adopting. The shortcomings with Lesson Drawing however, was that it did not encompass coercive transfer in instances where policy making was not voluntary. In order to encompass this type of policy

making as well to produce a single framework that could be used to understand how policies move, Dolowitz and Marsh (1996) developed the Policy Transfer framework.

Despite this, some still find it difficult to distinguish the difference between Policy Diffusion and Policy Transfer. This is because Marsh and Sharman (2009, p271) suggested that 'as far as the relationship between the concepts is concerned, some scholars argue that Policy Transfer is a type of diffusion (Newmark, 2002), while others see diffusion as a type of Policy Transfer (Busch and Jorgens, 2005) and Stone (2001) sees both as types of lesson-drawing'. For this reason, Marsh and Sharman (2009, p269) indicated that 'it is perhaps unsurprising that some authors have seen the lack of uniformity as a serious obstacle to extending our knowledge of diffusion and transfer, and in response have called for a process of standardization (James and Lodge, 2003, p.190; Holzinger and Knill, 2005, pp.775-776; Knill, 2005 p.764; Braun and Gilardi, 2006, p.298)'.

One major difference between Policy Transfer and Policy Diffusion however, is that diffusion 'uses quantitative techniques to analyse a large number of cases to produce generalizations about the reasons for, and the results of, the process. In contrast, the public Policy Transfer literature uses qualitative analysis of a limited number of cases' (Marsh and Sharman, 2009, p270). In addition, Wolman and Page (2002, p481) argued that 'diffusion studies require policy adoption, whereas learning through policy transfer...can occur even if the policy is not adopted'. This is because lessons can be learnt and influence an authority not to introduce a policy and is still classed as Policy Transfer. Furthermore, diffusion often occurs without identifying the role of actors or the reason why the policy was introduced, both of which are seen to be important for this thesis. To this end, Policy Transfer was adopted in this thesis, in part, because Evans and Davies (1999, p363) described Policy Transfer as a 'general framework of heterogeneous concepts including policy diffusion, policy convergence, policy learning and lesson drawing under the umbrella heading of Policy Transfer'.

In addition to the previous six research questions identified in Chapter 1 and 2, the findings in this chapter have given rise to the final three research questions. These are:

Research Question 7:

What are the main concerns of local authorities seeking to implement a WPL?

Research Question 8:

What future role does a WPL have as an urban transport policy instrument for local authorities?

Research Question 9:

What lessons can be/have been learnt from authorities that have already introduced a WPL?

These research questions are designed to understand the role of Policy Transfer specifically for the WPL policy. First, by understanding the main concerns of local authorities with respect to introducing a WPL, it allows the identification of the areas which require further understanding via Policy Transfer if further WPL schemes are to be introduced. It then seeks to understand the role a WPL may have as a transport policy instrument in order to understand if the transfer of the policy is likely. Finally, it seeks to understand the lessons specifically associated with a WPL that have been learnt as well what can be learnt in the future.

Chapter Four: Research Approach

4.1 Introduction

The purpose of this chapter is to present the research approach used to collect the data necessary to satisfy the aim, objectives and research questions of this thesis. The research paradigm is described in section 4.2 and is followed by details of the research gap (section 4.3) as well as the aim, objectives and research questions (section 4.4). Section 4.5 outlines the research design including the influence of Policy Transfer with respect to the approach and methods adopted. The individual methods for each part of the research will then be examined (section 4.6). This includes the Policy Transfer sub-case study (section 4.6.1); the Nottingham sub-case study (section 4.6.2); and the National sub-case study (section 4.6.3). Justification will be provided for the methods used for the data collection, data analysis as well as the respondents. A summary is then provided to complete the chapter (section 4.7).

4.2 Research Paradigm

The choices social scientists make in answering their questions mean that researchers need to be aware of their particular philosophy. For this reason Rosenberg (1988, pxiii) argued 'the philosophy of social science is an unavoidable topic for any social or behavioural scientist'. The approach of any research will therefore be influenced by the research paradigm the researcher holds with respect to the nature of the world and reality.

A paradigm can be thought of 'as a basic set of beliefs, a set of assumptions we are willing to make, which serve as touchstones in guiding our activities' (Guba and Lincoln, 1989, p80). These beliefs provide the basis for 'what should be studied, how research should be done, [and] how results should be interpreted' (Bryman, 1988, p4). Saunders et al (2007, p127) stated that 'our values have an important impact on the research we decide to pursue and the way in which we pursue it. This may not lead to any form of discord, but it may mean that some observers accuse us of untoward bias'. When thinking about philosophies, it can be easy to perceive one type better than another. Saunders et al (2007, p129) however argued that the different philosophies are suited to different things and 'the practical reality is that a particular research question can rarely be answered only within one philosophical domain'.

Despite this, purist views held by researchers have led to ‘wars’ in the social sciences over the supremacy of the quantitative and qualitative approaches (Curtis and Curtis, 2011, p5). Quantitative purists argue ‘social science inquiry should be objective ... [and that] educational researchers should eliminate their biases, remain emotionally detached and uninvolved with the objects of the study, and test or empirically justify their stated hypotheses’ (Johnson and Onwuegbuzie, 2007, p14). Whereas qualitative purists argue that ‘multiple-constructed realities abound, that time- and context-free generalizations are neither desirable nor possible, that research is value-bound, that it is impossible to differentiate fully causes and effects, that logic flows from specific to general, and that knower and known cannot be separated because the subjective knower is the only source of reality’ (Johnson and Onwuegbuzie, 2007, p14).

These purists’ beliefs have led to the view that the two approaches are not compatible in the same research as qualitative and quantitative research are ‘binary oppositions’ (Curtis and Curtis, 2011, p5). However, Saunders et al (2007, p129) argued that although ‘the debate is often framed in terms of a choice between positivist and interpretivist research philosophies or between quantitative and qualitative methods ... in recent years there have been suggestions that it is more appropriate for the researchers undertaking a particular study to think of the philosophy adopted as a multi-dimensional set of continua rather than separate positions’. These continua are outlined in Table 4.1. To provide an example of this, although for the axiology stance you may strive to undertake value-free research and remain objective, there may be the acknowledgement that there will be some subjective method or interpretation which means that it is not value-free, but neither is it value bound and therefore falls at some point along the continua.

Table 4.1 - Research Philosophy as a multidimensional set of continua

Dimension	Question	Continua		
Ontology	What is the nature of reality?	external	↔	socially constructed
		objective	↔	subjective
Epistemology	What is considered acceptable knowledge?	observable phenomena	↔	subjective meanings
		law-like generalisations	↔	Details of specifics
Axiology	What is the role of values?	value-free	↔	value bound

Source: Saunders et al (2007)

These continua have led to the view that 'while there may be quite meaningful differences at the ontological and epistemological levels, these differences do not matter in the day to day conduct of inquiry because methods and paradigms are independent' (Guba and Lincoln, 1989, p157). For this reason, Patton (1982, p190) argued that a researcher can make 'mind shifts back and forth between paradigms' even within the same investigation. Miles and Huberman (1984, p20) supported this claim as they argued that:

'It is getting harder to find any methodologists solidly encamped in one epistemology or the other. More and more "quantitative" methodologists, operating from a logical positivist stance, are using naturalistic and phenomenological approaches to complement tests, surveys and structured interviews. On the other side, an increasing number of ethnographers and qualitative researchers are using predesigned conceptual frameworks and prestructured instrumentation, especially when dealing with more than one institution or community.'

These arguments have therefore paved the way for mixed method approaches to be used to conduct research. Despite this, Sale et al (2002, p44) highlighted an issue with mixed-methods research by suggesting that it is 'being adopted uncritically by a new generation of researchers who overlooked the underlying assumptions behind the qualitative-quantitative debate'. This chapter will therefore address these concerns highlighting the ontological, epistemological, axiological and methodological position of the researcher. An overview of the main beliefs underpinning the philosophies associated with the social sciences is provided in Table 4.2 and will be used as the foundation for the discussion.

Table 4.2 - Comparison of research paradigms / philosophies

	Positivism	Realism	Pragmatism	Constructivism
Ontology: the researcher's view of the nature of reality or being	External, objective and independent of social actors. Facts are gained through observation and experience.	Is objective. Exists independently of human thoughts and beliefs or knowledge of their existence (realist), but is interpreted through social conditioning (critical realist)	External, multiple, view chosen to best enable answering of research question	Socially constructed, subjective, may change, multiple
Epistemology: the researcher's view regarding what constitutes acceptable knowledge	Only observable phenomena can provide credible data, facts. Focus on causality and law-like generalisations, reducing phenomena to simplest elements. Eliminates bias as the observed is independent from the observer and any subjective values	Observable phenomena provide credible data, facts. Insufficient data means inaccuracies in sensations (direct realism). Alternatively, phenomena create sensations which are open to misinterpretation (critical realism). Focus on explaining within a context or contexts	Either or both observable phenomena and subjective meanings can provide acceptable knowledge dependent upon the research question. Focus on practical applied research, integrating different perspectives to help interpret the data	Subjective meanings and social phenomena. Focus upon the details of the situation, a reality behind these details, subjective meanings motivating actions.
Axiology: the researcher's view of the role of values in research	Research is undertaken in a value-free way, the researcher is independent of the data and maintains an objective stance	Research is value laden; the researcher is biased by world views, cultural experiences and upbringing. These will impact on the research	Values play a large role in interpreting results, the researcher adopting both objective and subjective points of view	Research is value bound, the researcher is part of what is being researched, cannot be separated and so will be subjective
Data collection techniques most often used	Highly structured, large samples, measurement, quantitative, but can use qualitative	Methods chosen must fit the subject matter, quantitative or qualitative	Mixed or multiple method designs, quantitative and qualitative	Small samples, in-depth investigations, qualitative

Sources: Saunders et al (2007); Guba and Lincoln (1989); Bryman (2004)

4.2.1 Ontology

The paradigms of researchers are determined by an ontological position. Bryman (2004, p4) highlighted that ontology is 'to do with whether the social world is regarded as something external to social actors

or as something that people are in the process of fashioning'. Put simply 'ontology is concerned with the nature of reality' (Saunders et al, 2007, p130).

The objectivism and subjectivism approaches are the traditional paradigms. Objectivists believe that 'meaningful reality exists as such apart from the operation of any consciousness' (Crotty, 2005, p8). Subjectivists on the other hand believe 'that social phenomena are created from the perceptions and consequent actions of social actors' (Saunders et al, 2007, p132). A third approach however, is associated with mixed-method research and is synonymous with the pragmatic paradigm. This paradigm is of the view that the key determinant of a position is based around answering a particular research question and recognises 'that there are many different ways of interpreting the world and undertaking research' (Saunders et al, 2007, p130). This paradigm is therefore supportive of using mixed-methods for a research investigation so long as the method is the most appropriate for what it is trying to answer.

The pragmatic stance therefore allows the researcher to use methods based on 'what works' (Howe, 1988) whether that be qualitative or quantitative. There is also the view however, that should the stance of the researcher be positivist or constructivist, it should no longer mean that they are confined to the methods associated with each strategy. This is because Bryman (2004, p606) argued that 'there is a recognition that quantitative and qualitative research are each connected with distinctive epistemological and ontological assumptions, but the connections are not viewed as fixed and ineluctable ... [and indeed] a research method from one research strategy is viewed as capable of being pressed into the service of another'.

As this thesis adopts a mixed-method approach (see section 4.4.5), adopting a pragmatic approach would be a convenient stance to have. However, the ontological position is that of both the research as well as the researcher. To this end, the ontological position of the researcher is that of a critical realist. The view of a critical realist is 'that what we experience are sensations, the images of the things in the world, not the things directly ... [and] that the social world is constantly changing' (Saunders et al, 2007, p136-13). Put simply, critical realists seek objectivity but accept that interpretation is influenced by individual social perceptions.

4.2.2 Epistemology

Epistemology is concerned with 'what constitutes acceptable knowledge in the field of study' (Saunders et al, 2007, p132). It is concerned with the relationship between the researcher and the research and the influence the former has on the latter. The ontological position of a researcher will naturally influence the epistemological position. For example, 'if you assert that there exists an objective reality that goes on about its business despite any interest that an inquirer may have in it, it seems entirely appropriate to require that the inquirer should maintain an objective distance while studying it' (Guba and Lincoln, 1989, p87).

The positivist approach reflects the philosophical stance of the traditional scientist. Curtis and Curtis (2011, p12) indicated that positivists believe that 'good science is objective science, and the methods of doing research are largely about eliminating a subjective stance or bias on the part of the researcher and the research participants'. The opposite view to this is constructivism which regards knowledge as subjective. This view is that there is 'no objective truth waiting for us to discover ... truth, or meaning, comes into existence in and out of our engagement with the realities in our world ... [and] meaning is not discovered, but constructed' (Crotty, 2005, p8).

The third stance is interpretivism. This view requires a strategy that 'respects the differences between people and the objects of the natural sciences and therefore requires the social scientist to grasp the subjective meaning of social action' (Bryman, 2004, p16). Social realism is the final approach. This stance falls in the middle of the two traditional views in that social realists 'believe in an external and measurable social reality, but one that exists through the mediation of our perceptions of it and our actions' (Curtis and Curtis, 2011, p12). In other words, it is recognised 'there is a distinction between the objects that are the focus of their enquiries and the terms they [the researcher] use to describe, account for, and understand them' (Bryman, 2004, p15). Social realism is the view of the researcher. This indicates that whilst in the perfect sense, objectivity is unachievable, that should be the goal of what the research strives to achieve.

4.2.3 Axiology

Axiology is associated with the influence the values of the researcher have on the research. Heron (1996) argued that values guide the reasons for all human action and therefore values of the researcher can influence the inquiry. For example a constructivist believes that social reality is

constructed through meaning and therefore the researcher's values will influence how something is interpreted. At the opposite end however, positivists believe that in scientific research, the values of the researcher should and cannot influence the inquiry. The pragmatism view is that the researcher can adopt both the objective and subjective view. This is because whilst values are considered to be significant in interpreting the results (Saunders et al, 2007), for a pragmatist they are deemed not to pose any threat to the validity (Cherryholmes, 1992). Finally whilst a realist (the view of the researcher) seeks objectiveness, Saunders et al (2007) asserted that research will be value laden and will influence the research based on the biases of the researcher with respect to world views, cultural experiences and upbringing.

4.2.4 Methodology

In order to understand what constitutes acceptable knowledge it is important to recognise the methodology; that is 'the particular ways of knowing that reality' (Sale et al, 2002, p44). Slevitch (2011, p75) stated that 'each methodology is based on particular system of theories, which specify (1) assumptions about reality, human nature, and society; (2) beliefs about what it is important to study; and (3) assumptions about what constitutes legitimate knowledge and meaningful data. Accordingly, each methodology establishes '*methods* – a set of tools, procedures, techniques, or strategies to be used in a scientific enquiry'.

Whilst not dictated by the ontological and epistemological position, the methodological stance is certainly influenced by the views of the researcher with respect to the approach used to develop knowledge and its interpretation. This view is more relevant to the approach taken in general opposed to the specific tools or methods used. The positivist view is based on rigid experimental tests and the emphasis is placed on hypothesis verification (Guba and Lincoln, 1994). These experiments are designed to restrict external influences so that the test produces an objective result that can be replicated. The constructivist view is that knowledge is developed through the construction and interpretation of social phenomena and can be associated with qualitative, small sample, in-depth investigations. Pragmatism is associated with a holistic approach where the researcher seeks to obtain and understand both the objective and subjective perspective to combine the scientific rigour with the social understanding (Saunders et al, 2007). Realist methodologies are associated with investigations which include contextual information and that the methods used are based on best fitting the subject matter although the emphasis is placed on falsification opposed to verification. This view is on the basis that falsification can explain what laws or facts that ought to exist as well as the laws or facts that

definitely do not exist. Popper (1968) provided the well-known example that the observation of a million white swans does not prove all swans are white, but the observation of one black swan can prove they are not.

In summary, this section has presented the different research paradigms and approaches that can be adopted. The research philosophy adopted by the author and in this research is that of a critical realist. Whilst this is the approach adopted, the research design is influenced by numerous factors not least the theoretical framework (section 4.5.3) and the research questions of the study (section 4.4). First however, the research gap will first be described drawing together the findings from Chapter 1, 2 and 3 as well as a revisit of the aim, objectives and research questions of this thesis.

4.3 Research Gap

Chapter one identified that road traffic congestion is a major cost and was viewed to be a significant issue by Government, Officers, Councillors and Academics. Moreover, issues associated with expanding the road network as well as the introduction of a RUC scheme has meant there has been increased interest in parking policy. This is because parking policy is viewed to be easier to implement, an effective approach for reducing car use due to the major influence the availability of parking has on a motorist's decision of how to travel as well as their ability to achieve wider policy objectives such as raising revenue.

Despite these benefits, in Chapter two it was identified that a lack of control for local authorities over private parking, which can account for more than half of the total parking stock in urban areas, reduces the effectiveness of area wide parking strategies (section 2.2.2). For this reason, the various measures that have been used globally to exert some control of these types of parking spaces were described and include cash-out programs, parking taxes (USA), parking space licences and parking levies (Australia) (section 2.5.3). These schemes however, have often been introduced in countries in isolation.

Specifically in the UK, in the Transport Act 2000 Government granted local authorities power to introduce a WPL to address the problems associated with private parking at the workplace. This is important due to the influence free parking at the workplace has on car use as well as the impact on peak period congestion due to the demand of commuters revolving around the traditional '9-5 day'. To

date however, only one authority has introduced a WPL in the UK and it was identified from the literature to be a significant lack of research on the measure.

In addition to this, Chapter two also identified that there was scope for authorities to learn lessons of best practice when addressing common problems which led to the use of Policy Transfer to underpin this thesis. In Chapter three, Marsden et al (2011, p1) indicated the importance of studying the process and transfer of knowledge as it was stated:

'There is considerable interest in identifying examples of good practice in urban transport policy. Academics and practitioners alike are interested in studying new policies, programmes and projects and reporting on their actual or anticipated performance, successful or otherwise. In contrast there is little tradition of studying the process of the development and transfer of policy ideas. This is particularly important given the recent heightened focus at all levels of government on sustainability and climate change in an era of constrained financial resources, mounting traffic congestion and deteriorating transport infrastructure.'

To this end, it is thought to be important to study novel transport policies when introduced in new locations in order to understand such a scheme. Furthermore, Ison (2004, p59) suggests that 'action often springs from new opportunities, not from 'problems' at all' and therefore being aware of new opportunities can be important for Policy Transfer to occur. Moreover, the transferability of parking measures are of particular importance because of the scale of the problems associated with PNR parking and the absence of research on parking levies in the UK which may be a barrier to the transferability of such schemes.

4.4 Aim, Objectives and Research Questions

To address this research gap, the aim of this thesis is:

To investigate the transferability of the Workplace Parking Levy as a transport policy measure

It is anticipated that this will be attained through the completion of the following objectives –

1. To identify the issues associated with parking policy

2. To explore the role of Policy Transfer with respect to the WPL policy
3. To examine the views of key stakeholders with respect to the introduction and operation of the WPL in the City of Nottingham
4. To understand the views of key stakeholders with respect to the WPL in the UK
5. To develop recommendations for policy makers and practitioners considering the implementation of a WPL

The research questions provide guidance to satisfy the aim and objectives and were developed from the work undertaken in Chapters 1, 2 and 3. The questions are as follows:

Research Question 1:

What are the views of Government and Local authorities with respect to traffic congestion?

Research Question 2:

What are the views of Government and Local authorities with respect to parking policies?

Research Question 3:

For what reason(s) might local authorities implement a WPL?

Research Question 4:

To what extent can a WPL be deemed to be more appropriate than alternative transport policy options as an urban transport policy instrument?

Research Question 5:

What are the issues associated with the design and implementation of a WPL scheme?

Research Question 6:

What are the likely impacts of a WPL scheme?

Research Question 7:

What are the main concerns of local authorities seeking to implement a WPL?

Research Question 8:

What future role does a WPL have as an urban transport policy instrument for local authorities?

Research Question 9:

What lessons can be/have been learnt from authorities that have already introduced a WPL?

The rest of this chapter will describe the process of the research design and methods used in this thesis. Whilst research design and research method could be seen to interchangeable terms, they portray different things. Bryman (2004, p31) stated that 'a research design provides a framework for the collection and analysis of data' whilst 'a research method is simply a technique for collecting data'. For these reasons the research design and the research methods will be discussed in separate sections. Section 4.5 will first describe the research design which includes the influence of the theoretical framework on the approach taken.

4.5 Research Design

The research design provides a structure for how the data is collected and analysed; it 'represents a structure that guides the execution of a research method and the analysis of the subsequent data' (Bryman, 2004 p30). Yin (2009) identified five major designs that can be used to collect and analyse data; and three conditions to determine which approach is suitable; these are presented in Table 4.3.

Table 4.3 – Research design options

Research Design	(1) Form of Research Question	(2) Requires control of behavioural events?	(3) Focuses on contemporary events?
Experiment	How, why?	Yes	Yes
Survey	Who, what, where, how many, how much?	No	Yes
Archival Analysis	Who what, were, how many, how much?	No	Yes / no
History	How, why?	No	No
Case Study	How, why?	No	yes

Source: Adapted from Yin, 2009, p.8

Although each research design has distinct individual characteristics, Yin (2009, p8) highlighted that 'there are large overlaps among them ... [and therefore] the goal is to avoid gross misfits – that is, when you are planning to use one type of method but another is really advantageous'. The correct research design therefore is based on the approach that is most appropriate for the research based on the research questions, control over the situation and the timing of the event. These will be discussed individually to understand their meaning and influence on this thesis.

4.5.1 Form of Research Questions

The research questions are important to understand what we want to achieve. This is because 'we first need to establish what we are trying to find out, and then consider how we are going to do it' (Punch, 2005, p20). Research questions are vital for research and Punch (2005, p37) suggested that there are five key benefits:

1. 'They organize the project, and give it direction and coherence.
2. They delimit the project, showing its boundaries.
3. They keep the researcher focused during the project.
4. They provide a framework for writing up the project.
5. They point to the data that will be needed.'

Based on these criteria it is important to review what this thesis aims to achieve and the conditions in which it is being undertaken. It first seeks to explore the views of Government and Local Authorities with respect to traffic congestion and parking policies. It then seeks to explore the reasons why Local Authorities might introduce a WPL as well as to what extent the WPL can be deemed more appropriate than alternative transport policy instruments. It then seeks to assess how the WPL was introduced in Nottingham in order to understand the design and implementation of a WPL scheme as well as what the likely impacts of a WPL scheme are. What the main concerns are with respect to introducing a WPL, what role the WPL may have for Local Authorities in the future as well what lessons can be and have been learnt will also be explored.

The questions associated with this research are "why", "how" and "what". Although "what" is related to surveys and archival analysis, Yin (2009, p9) stated that some "what" questions are exploratory which could make all five of the research designs relevant. However, the "why" and "how" questions are only applicable to experiment, history and case study as these 'questions deal with operational links needing

to be traced over time, rather than mere frequencies or incidence' (Yin, 2009, p9). This means that an experiment, history or case study research design is the most suitable approach based solely on the form of research question (table 4.3). The next section however will consider the influence the control over behavioural events as well as the timing has on the research design.

4.5.2 Control over Behavioural Events and Timing

In this thesis, there is no control over the research events or the timing as the research is based on live events. Experiments are unsuitable as they require an element of control and work best 'when an investigator can manipulate behaviour directly, precisely, and systematically' (Yin, 2009, p11); something not possible in this research. Histories deal 'with the dead past – that is, when no relevant persons are alive to report, even retrospectively, what occurred and when an investigator must rely on primary documents, secondary documents, and cultural and physical artefacts as the main sources of evidence' (Yin, 2009, p11). As the WPL is a contemporary event, primary research can be undertaken with key stakeholders which means that histories is inappropriate for this research. This indicates that a case study is the most suitable approach.

Yin (2009, p4) provided support for a case study as it was stated that 'the more that your questions seek to explain some present circumstance (e.g., "how" or "why" some social phenomenon works), the more that the case study method will be relevant ... the method also is relevant the more that your questions require an extensive and "in-depth" description of some social phenomenon'. As this thesis aims to provide an in-depth understanding as to why local authorities would introduce a WPL (social phenomenon) as well as how it would be introduced whilst identifying any concerns, a case study was highlighted as the most suitable design.

For the research approach to be effective however, it should be informed by numerous factors not least the chosen theoretical framework. Silverman (2010, p103) highlighted how 'methodologies and research questions are inevitably theoretically informed' which makes it necessary to highlight the influence of the theoretical framework on the chosen research approach.

4.5.3 Influence of Policy Transfer on Research Approach

Policy transfer can be defined as 'a process in which knowledge about policies, administrative arrangements, institutions, etc. in one time and/or place is used in the development of policies, administrative arrangements and institutions in another time and/or place' (Dolowitz and Marsh, 1996,

p344). Hill (1997, p.120) identified that the research approach used for 'policy process studies are likely to be case studies, using qualitative methods'. Specifically for Policy Transfer studies, Marsh and Sharman (2009, p270) outlined how 'the public Policy Transfer literature uses qualitative analysis of a limited number of cases'. The reason for this approach is because the collection of data is not constrained to predetermined categories of analysis (Patton, 1987) which often mean that qualitative approaches can obtain greater detail compared with quantitative approaches studying individual cases (Mason, 1996).

The research in this thesis is focused to gain a detailed understanding of the implementation of a policy in an individual setting. This information will then be used to help understand the likelihood of other locations in the UK implementing such a scheme. Therefore, based on the research design associated with policy processes and policy transfer, a case study approach is seen to be an effective way to structure the data collection.

This supports the findings earlier in the section based on the type of research questions as well as the control and timing of the event. To this end, section 4.4.4 will outline further details of what a Case Study design is and the application to this thesis.

4.5.4 Case Study Designs and Application to Thesis

Robson (1993, p146) described a case study as a 'strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence'. Bryman (2004, p53-57) stated that 'one of the standard criticisms of the case study is that findings deriving from it cannot be generalized ... [although] case study researchers tend to argue that they aim to generate an intensive examination of a single case, in relation to which they then engage in a theoretical analysis'.

Schramm (1971, p6) suggested that 'the essence of a case study, the central tendency among all types of case study is that it tries to illuminate a decision or set of decisions: why they were taken, how they were implemented, and with what result'. This is representative of what this thesis aims to understand with respect to the WPL in Nottingham.

Case study designs can be clearly classified into four distinct types of case study. The differences are based on whether the case study has single or multiple cases; and single or multiple units of analysis

(Table 4.4). The different approaches are relevant depending on the context of the research and the type of analysis that is used.

Table 4.4 – Types of Case Study Design

	Single Case Design	Multiple Case Design
Holistic (Single unit of analysis)	Type 1: Single case, single unit of analysis	Type 3: Multiple case, single unit of analysis
Embedded (Multiple unit of analysis)	Type 2: Single case, multiple units of analysis	Type 4: Multiple case, multiple units of analysis

(Source – Yin, 2009, p46)

A single-case design should be used when ‘the case represents an extreme or unique case’ (Yin, 2009, p47); such as the introduction of the WPL in Nottingham. Holistic case studies are primarily considered when the theoretical framework is of a holistic nature or if it is difficult to break down the case into sub-units of analysis. A problem with a holistic design however, is that the data generated may not be detailed or sufficient to answer the proposed research questions. Yin (2009, p50) outlined that with a holistic design, ‘the entire case study may be conducted at an unduly abstract level, lacking sufficiently clear measure or data’. An embedded design on the other hand ‘can often add significant opportunities for extensive analysis, enhancing the insights into the single case’ (Yin, 2009, pp52-53). One drawback with embedded designs can be the risk that the research into the individual units becomes the main priority leading to the researcher not returning to the larger and main unit of analysis; this can lead to the wrong results for the desired research questions.

Based on the requirements of this thesis, a single-case, multiple unit of analysis case study design (Type 2) has been highlighted as the most suitable. The case that is being investigated in this thesis is the transferability of the WPL and the multiple units of analysis are the Policy Transfer sub-case (section 4.6.1), the Nottingham sub-case (section 4.6.2) and the National sub-case (4.6.3). The methods used for the three units of analysis are presented in Table 4.5.

Table 4.5 – Research Design and Methods

THE CASE: An investigation into the transferability of the WPL					
Objectives	Unit of Analysis	Methods			Chapter
		Qualitative		Quantitative	
1. To identify the issues associated with parking policy		Literature / Document Review			2
2. To explore the role of Policy Transfer with respect to the WPL policy	Policy Transfer	Literature / Document Review	Interviews (5 respondents)		3
3. To examine the views of key stakeholders with respect to the introduction and operation of the WPL in the City of Nottingham	Local View: Nottingham	Document Analysis: Nottingham	Interviews (31 respondents)		6, 7
4. To understand the views of key stakeholders with respect to the WPL in the UK	National View: UK Government and Local authorities	Document Analysis: National	Interviews (2 respondents)	National Survey of English Officers and Councillors (106 respondents)	5, 8
5. To develop recommendations for policy makers and practitioners considering the implementation of a WPL				Synthesis of Findings	10

The first unit of analysis, the Policy Transfer sub-case, was undertaken using a literature review and five interviews. The second unit of analysis, the Nottingham sub-case, analyses the documentation associated with the WPL in Nottingham as well as 31 interviews with key stakeholders in the City. Third, the national sub-case study is constructed using data from a documentary analysis, two interviews and a national survey of Officers and Councillors for all English Transport authorities. At this point it is worth highlighting that the results of the national documentary analysis and national interviews will first be presented as it provides the setting for the Nottingham scheme (Chapter 5). This will then be followed by the local Nottingham documentary analysis (Chapter 6), the Nottingham interviews (Chapter 7) and the National survey findings (Chapter 8). The methods employed to collect the data for each sub-case study is examined in section 4.6. First however, the mixed method typology employed in this thesis is reviewed.

4.5.5 Mixed-Methods Research Design

Mixed-methods or multi-strategy research designs are when both qualitative and quantitative data collection are used in the same piece of research. Traditionally, mixing qualitative and quantitative was seen to be incompatible because of the differences in the research paradigms associated with each; this is the epistemological argument highlighted in section 4.2. This argument is on the basis that 'because the two paradigms do not study the same phenomena, quantitative and qualitative methods cannot be combined' (Sale et al, 2002, p43).

The differences between the methods were highlighted in section 4.2 and were essentially because quantitative research 'uses numerical data, and, typically, structured and predetermined research questions, conceptual frameworks and designs ... [whilst] qualitative research not only uses non-numerical and unstructured data, but also, typically, has research questions and methods which are more general at the start, and become more focused as the study progresses' (Punch, 1998, p29). This has meant that today, not only are quantitative and qualitative compatible, but mixed methods are 'feasible and desirable' (Bryman, 2004, p606). For similar reasons Johnson et al (2007, p117) suggested that 'we currently are in three methodological or research paradigm world, with quantitative, qualitative, and mixed methods research all thriving and coexisting'.

The nine different approaches that can be adopted to undertake a mixed-method approach are outlined in Figure 4.1. The differences are based on whether the different aspects of research are undertaken concurrently or sequentially as well as the dominance of either a qualitative or quantitative approach.

Figure 4.1 – Mixed-method design matrix

		Time Order Decision	
		Concurrent	Sequential
Paradigm Emphasis Decision	Equal Status	1. QUAL + QUAN	2. QUAL → QUAN 3. QUAN → QUAL
	Dominant Status	4. QUAL + quan 5. QUAN + qual	6. QUAL → quan 7. qual → QUAN 8. QUAN → qual 9. quan → QUAL

Note. "qual" stands for qualitative, "quan" stands for quantitative.

Adapted from Johnson and Onwuegbuzie (2007)

The left column indicates when research is carried out concurrently (1, 4, 5) and the right column indicates when the research is undertaken at different stages, or sequentially (2, 3, 6, 7, 8, 9). The top row indicates the approaches where quantitative and qualitative share equal status (1, 2, 3) and the bottom row outlines the approaches that have a dominant approach (4, 5, 6, 7, 8, 9); this is outlined by capitalisation.

Given the case of the WPL and the proposed research questions, it was felt appropriate to adopt a sequential approach. This is because Policy Transfer interviews were first undertaken and were followed by a national and Nottingham documentary analysis which was used to determine the questions used for the semi-structured interviews in the Nottingham sub-case study. These findings were then used to determine the survey questions in the national sub-case study. Qualitative and quantitative approaches were given equal status which meant option 2 was used in this thesis. Robson (2002, p165) described this approach as a *sequential transformative design* which is where 'one method precedes the other with either the qualitative or the quantitative method first ... [,] the results are integrated during interpretation [and] this design is guided primarily by a theoretical perspective (e.g. by the conceptual framework adopted)'.

A mixed-method approach was adopted due to the detail required from the Nottingham sub-case study and the breadth of data required from the National sub-case study. Benefits of a mixed-method approach include 'a more complete and comprehensive picture of the topic of the research...; [it] can

help neutralize the limitations of each approach while building on their strengths, leading to stronger inferences...; [and] a combination of research approaches is particularly valuable in real world settings because of the complex nature of the phenomena and the range of perspectives that are required to understand them' (Robson, 2002, p167). The type and justification of the different methods adopted will now be discussed.

4.6 Research Methods

The research methods that are selected need to be chosen 'based on what kind of information is sought, from whom and under what circumstances' (Robson, 2011, p232). The development of the data-collection instruments should be made with the 'research questions at the forefront of your thinking' to avoid the situation where the data collected does not match with that required to answer the research questions (Bryman, 2004, p76). Robson (2011, p232) provided guidance for which methods to use depending on the data that is required, this is presented in Table 4.6.

Table 4.6 –Methods for Different Types of Research Questions

Purpose	Methods
To find out what people do in public	Direct observation
To find out what they do in private	Interviews, questionnaires
To find out what they think, feel and / or believe	Interviews, questionnaires, attitude scales
To determine their abilities, or measure their intelligence or personality	Standardized tests

Source – Robson, 2011, p232

The research questions in this thesis are focused to understand the views key stakeholders in Nottingham with respect to the WPL as well as the views of key stakeholders within local authorities with respect to transport related issues and the WPL. Based on the information in Table 4.6 therefore, the most relevant category is to find out what the respondents think, feel and/or believe using interviews, questionnaires and attitude scales. The methods used for each sub-case study will now be outlined.

4.6.1 Policy Transfer Sub-Case Study

The first sub-case study was designed to satisfy research objective two:

To explore the role of Policy Transfer with respect to the WPL policy

To achieve this, the literature was first reviewed to understand and highlight the key areas of the framework and was followed by five interviews with key authors in the field of Policy Transfer. The reason for these interviews was to generate a state of the art review of the framework on the basis that at the time the research was undertaken there was an absence of recent literature and the interview findings would provide a more contemporary review and understanding of the framework. The type of interviews that were used will now be described.

Research Interviews

In social research, interviews are a 'very good way of accessing people's perceptions, meanings, definitions of situations and constructions of reality' (Punch, 2005, p.168) and 'are essential sources of case study information' (Yin, 2009, p106). Research interviews are 'initiated by the interviewer for the specific purpose of obtaining research relevant information and focused by him on content specified by research objectives of systematic description, prediction or explanation' (Cohen and Mannion, 1989, p307). Research interviews are therefore a formalised approach to gather information from respondents to satisfy the needs of the aim and objectives. Table 4.7 describes the different types of interviews that can be used in research depending on the research needs.

Table 4.7 – Types of Interview

Interview Type	Description
Structured interview	All interviewees are given exactly the same context of questioning so that the responses are in reply to identical cues. The questions are required to be read out exactly as they are printed and in the order printed on the schedule.
Semi-structured interview	The interviewer has a series of questions printed on a schedule but the order in which they are asked can vary. The questions tend to be more general and allow the interviewer to explore replies with further questions if appropriate.
Unstructured interview	The interviewer only has a list of topics used a guide to cover. The questions are informal and the order in which the questions are asked varies.

Source – Bryman, 2004, p193-196

For case studies, interviews are seen to be more of a guided conversation rather than following a rigid structure. This is because 'although you will be pursuing a consistent line of inquiry, your actual stream of questions in a case study interview is likely to be fluid rather than rigid' (Yin, 2009, p106). Qualitative interviews have a greater emphasis on the respondent's perspective and therefore often go off on a

tangent providing insight into what the interviewee regards as relevant and important. Therefore deviation from the ordering of the interview questions should be anticipated and certain topics should be allowed to be explored in greater detail if deemed necessary in each interview (Bryman, 2004, p437).

Although questions were developed from the review of the Policy Transfer literature, the anticipated responses and issues meant that a degree of flexibility in the interview was identified to be important to allow further exploration of areas deemed significant. This is because Denscombe (2003, p176) suggested that 'allowing interviewees to "speak their minds" is a better way of discovering things about complex issues ... [and allows] interviewees to use their own words and develop their own thought'. However whilst some flexibility was necessary, the questions and topics for discussion were known which meant semi-structured interviews were highlighted as the most appropriate type of interview for the Policy Transfer sub-case study. To this end, interviews were undertaken between December 2012 and January 2013 with five academics who were identified to be 'knowledgeables' (Grimble, 1998) and leading authors in the field of Policy Transfer following the review of the literature.

In the event, the interviews were recorded using a digital voice recorder following the consent and approval of the respondent in line with Loughborough University ethics procedure. These recordings were subsequently transcribed as this can help 'correct the natural limitations of our memories and of the intuitive glosses that we might place on what people say in interviews ... [and] it allows more thorough examination of what people say' (Bryman, 2004, p451). Furthermore Robson (2011, p478) highlighted that although transcribing can be a time consuming exercise, 'it is an excellent way of starting to familiarize yourself with the data' to provide a foundation to begin data analysis.

Once transcribed a thematic coding approach was applied to analyse the qualitative data. Thematic analysis is 'a term used in connection with the analysis of qualitative data to refer to the extraction of key themes in one's data' (Bryman, 2004, p700). The data is coded to highlight things of potential interest before 'codes with the same label are grouped together as a theme' (Robson, 2011, p467). Moreover, 'codes and themes occurring in the data can be determined inductively from reviewing the data and/or from relevance to your research questions, previous research or theoretical considerations ... [and] then serve as a basis for further data analysis and interpretation' (Robson, 2011, p467). Bryman (2004, p598) identified that 'a theme is more likely to be identified the more times the phenomenon it denotes occurs in the course of coding...[and therefore] a kind of implicit quantification may be in operation that influences the identification of themes and the elevation of some themes over others'.

To aid this coding process a computer-assisted qualitative data analysis software (CAQDAS), more specifically NVivo, was used. The benefits of using a CAQDAS is that although they do not help with decisions regarding what to code or how to interpret the findings, 'it can make many if not most of the clerical tasks associated with the manual coding and retrieving data easier and faster', especially for larger data sets (Bryman, 2004, p584). Once the themes have been identified, the data can be analysed as identifying the themes is 'a tool in the analysis, not the analysis itself' (Robson, 2011, p483). To understand the themes and to 'generate meaning', Miles and Huberman (1994, pp245-246) highlighted a range of tactics that can be used; these are summarised in table 4.8.

Table 4.8 – Tactics to Generate Meaning from Themes

Tactic	Description
Noting patterns, themes and trends	Identify topics that frequently arise
Seeing plausibility	Do the trends, patterns and conclusions make sense?
Clustering	Grouping events, places, people, processes, etc. together if they appear to have similar patterns or characteristics
Making metaphors	Metaphors are rich, data-reducing and pattern-making devices which help to connect data with theory
Counting	Helps to see what's there by counting the frequency of occurrence of recurrent events
Making contrasts and comparisons	Establishing similarities and differences between and within data sets
Partitioning variables	Splitting variables may help in finding more coherent descriptions and explanations
Subsuming particulars into the general	Linking specific data to general concepts and categories
Factoring	Attempting to discover the factors underlying the process under investigation
Noting relations between variables	Using matrix displays and other methods to study interrelationships between different parts of the data
Finding interview variables	Trying to establish the presence and effects of variables intervening between observed variables
Building a logical chain of evidence	Trying to understand trends and patterns through developing logical relationships
Making conceptual / theoretical coherence	Moving from data to constructs to theories through analysis and categorization

Source – Robson, 2011, p484; Miles and Huberman, 1994, p245-246.

To analyse the Policy Transfer interviews, two tactics were primarily employed. Noting patterns, themes and trends was first used to identify popular topics amongst the respondents whilst making contrasts and comparisons was also used for example, to distinguish the differences between what can and cannot be classed as Policy Transfer.

With regard to the outcome of the analysis, Braun and Clarke (2006, p93) provided a summary of what a researcher is trying to achieve when analysing qualitative data:

'a concise, coherent, logical, non-repetitive and interesting account of the story the data tell – within and across the themes. Your write-up must provide sufficient evidence of the themes within the data – i.e. enough data extracts to demonstrate the prevalence of the theme. Choose particularly vivid examples or extracts which capture the essence of the point you are demonstrating, without unnecessary complexity. The extract should be easily identifiable as an example of the issue. However, your write-up needs to do more than just provide data. Extracts need to be embedded within an analytic narrative that compellingly illustrates the story you are telling about your data, and your analytic narrative needs to go beyond description of the data, and make an argument in relation to your research question'.

The challenge therefore of qualitative analysis is 'to tell the story of your data in a way which convinces the reader of the merit and trustworthiness of your analysis' (Robson, 2011 p486). Since these interviews were undertaken however, more recent literature including a special issue, has been published on Policy Transfer which indicates the continued interest in the field. Despite the availability of more recent literature (which has been incorporated), the richness of the data obtained in these interviews have still been included due to the substance they add to the thesis.

4.6.2 Nottingham Sub-Case Study

The purpose of the Nottingham sub-case study was in order to satisfy research objective 3:

To examine the perspectives of key actors relating to the introduction and operation of the WPL in the City of Nottingham

As the purpose of this sub-case study was to examine the perspectives of key actors, it was identified that exploratory interviews can be used to help understand what the respondents think, feel and / or

believe (Table 4.6). Specifically, interviews allow the researcher ‘the possibility of modifying one’s line of enquiry, following up interesting responses and investigating underlying motives in a way that postal and other self-administered questionnaires cannot’ (Robson, 2002, p280). This was seen to be important in order to understand the respondent’s views in the greatest detail allowing for further exploration of any points raised. Before the views of key actors were examined however, a documentary review was first undertaken to understand the WPL.

Documentary Analysis: Nottingham

The purpose of the Nottingham documentary analysis was to provide some context to the Nottingham scheme. Yin (2009, pp101-103) highlighted that ‘documentary information is likely to be relevant to every case study topic’ and ‘documents are useful even though they are not always accurate and may not be lacking in bias’. Specifically for case studies, the use of documents is seen to be most important ‘to corroborate and augment evidence from other sources’ (Yin, 2009, p103). Table 4.9 presents the strengths and weaknesses associated with document analysis.

Table 4.9 – Strengths of Weaknesses of a Documentary Analysis

Strengths	Weaknesses
Stable – can be reviewed repeatedly	Retrievability – can be difficult to find
Unobtrusive – not created as a result of the case study	Biased selectivity, if collection is incomplete
Exact – contains exact names, references, and details of an event	Reporting bias – reflects (unknown) bias of author
Broad coverage – long span of time, any events, and many settings	Access – may be deliberately withheld

Source – Yin (2009, p103)

The ‘type of information can take many forms and should be the object of explicit data collection plans’ (Yin, 2009, p101). One problem that has arisen in recent years however, is ‘the abundance of materials available through Internet searches’ (Yin, 2009, p105) which has emphasised the importance to keep a focus on the research inquiry in guidance with the research questions.

The Nottingham documentary analysis primarily consisted of documentation published by Nottingham City Council (NCC) as well as consultant reports. The Nottingham document analysis (as well as the National document analysis – section 4.6.3) highlighted the areas and topics which would require

further exploration during the subsequent stages of the research as well as the identification of some of the key stakeholders associated with the WPL in Nottingham to ensure the data was rich and explanatory. Whilst the benefits of semi-structured interviews were outlined in section 4.6.1, the next sub-section will present the details of the interviews specifically for the Nottingham sub-case study.

Research Interviews

Although questions were developed from the documentary analysis, the anticipated responses and variation in the respondents meant semi-structured interviews were used. Yin (2009, p106) highlighted that a benefit of these types of interview is that they can allow you to understand “why” a particular process occurred as it did; something important for the Nottingham sub-case.

Initially, ‘knowledgeables’ (Grimble, 1998) were identified from the Nottingham documentary analysis as it was thought they would hold key information required to understand the Nottingham WPL. These ‘knowledgeables’ were then used to help identify further respondents using a snowball sampling technique; that is when ‘the researcher makes initial contact with a small group of people who are relevant to the research topic and then uses these to establish contacts with others’ (Bryman, 2004, p184). This was for two reasons. Firstly as there was a temporal dimension, some of the key figures who were involved with the scheme had since left their role which in some instances made it difficult to identify certain key stakeholders. However, it was anticipated that some of the initial respondents would have previously been colleagues with these people and would therefore be able to provide contact details. Secondly, due to the contemporary nature of the study, in some instances there was little knowledge of the involvement of certain stakeholders until discussions were held with the identified groups. Examples of respondents who only became apparent following the initial interviews were a NCC Officer heavily involved in the initial development of the scheme, a property developer and an Australian Parking Levy expert. Table 4.10 presents the different groups as well as the individual respondents that were interviewed in order to ensure views were attained from different perspectives. The interviews were undertaken between January and March 2013.

Table 4.10 – Interview Respondents

Group	Who
Councillors	Nottingham City Council x3
	Nottinghamshire County Council
	Rushcliffe Borough Council
Officers	Nottingham City Council x10
	Nottinghamshire County Council
Employers	Small employers x3
	Medium employers x3
	Large employers x3
Other	Business Organisations x2
	Property Developer
	Trade Union
	Local Partnership Organisation
	Australian Parking Levy Expert Seconded to Nottingham City Council

In order to minimise bias, balance was sought by identifying equal number of respondents who were expected to perceive the scheme positively and negatively. Councillors were split depending on their role, political party and which local authority they represented. Officers were chosen based on which local authority they represented as well as their remit. This was to ensure additional views outside of a transport perspective were attained with regard to the WPL, such as officers with an environmental or economic responsibility. Employers in the city were divided based on size in relation to number of employees and number of parking spaces. Three employers were then chosen to represent a small, medium and large sized employers group based on their willingness to participate in an interview. Different types of employer were also sought based on the length of time the employer had been in the city, the type of sector the employer operates in (such as manufacturing, a technology firm and public service employer) as well as an employer unaffected by the WPL based on the number of parking spaces. Finally the group labelled 'Other' were individuals that were identified to be a key stakeholder with respect to the WPL in Nottingham and were interviewed in order to gain a broad perspective.

The questions that were asked were required to be broad enough so they were relevant for the different stakeholders without neglecting the detail required from each individual perspective. This was

particularly the case for the NCC employees as an understanding of the development of the scheme was important so that any potential issues for other local authorities could be understood. The questions had to be changed slightly to accommodate the Australian Parking Levy expert on the basis that some of the questions were too specific. Despite this, the interview with the Parking Levy expert was deemed important as their view as a “neutral” would provide rich and deeper understanding of the WPL in Nottingham. The questions asked were in order to answer the aim, objectives and research questions of this thesis and were developed from the literature and documentary analysis. Indeed, Yin (2009, p14) stated that ‘novices may think the purpose of a literature review is to determine the *answers* about what is known on a topic; in contrast, experienced investigators review previous research to develop sharper and more insightful *questions* about the topic’. The interview questions are presented in Appendix A.

Similar to the Policy Transfer interviews, the interviews were recorded and transcribed. Moreover, due to the fact there were 31 interviews for the Nottingham sub-case study, a CAQDAS was again used to aid the organisation of the data in order to support the understanding of the codes and themes that emerge. To generate meaning of the themes, many of the tactics outlined in Table 4.8 were employed. Building a logical chain of evidence was used in order to gain a detailed understanding of the events that occurred when NCC were introducing a WPL as well as the reasons for the steps that were taken. Identifying patterns, themes and trends as well as counting were important in order to draw out the key messages associated with the WPL in Nottingham which then allowed contrasts and comparisons to be made. Clustering was also used to see if there were differences in how the WPL was perceived for example between NCC and employers.

This section has presented the research approach used for the Sub-Case Study of Nottingham. Semi-structured interviews were undertaken with key stakeholders identified from the documentary analysis and a snowball sample whilst the questions were developed using the findings from the literature and documentary analysis. The interviews were recorded, transcribed and analysed using a CAQDAS which aided the process of coding the data whilst themes were identified using the research questions with various tactics employed in order to interpret and analyse the data. The next section presents the research methods for the national sub-case study.

4.6.3 National Sub-Case Study

The reason for undertaking a national survey was in order to satisfy objective 4. This was:

To examine the perspectives of key actors relating to the WPL in the UK

First therefore, a national documentary analysis (section 4.6.2) was undertaken to understand the UK context in which the legislation for the WPL was introduced. The reason for this was to understand the situation in the UK that ultimately led to central government introducing legislation that gave local authorities the power to introduce a WPL as well as the subsequent developments. The type of documents that were analysed included reports from central government, academia and consultancies. In addition to this, two semi-structured interviews (section 4.6.1) were undertaken with transport civil servants during the key years of the WPL and supplemented the findings of the documentary analysis by providing rich and detailed explanatory data that could not be obtained from the documents alone. Whilst there was a preference to interview more than two civil servants in order to gather a representative view, the timing of the research so long after the Transport Act 2000 meant it was difficult to identify and contact the key officials involved with developing the legislation. A snowball sample was used to mitigate this issue however only two key national civil servants could be identified. The results of the documentary analysis and civil servant interviews coupled with the results of the Policy Transfer sub-case study and Nottingham sub-case study were then used to help formulate the questions that would be asked to obtain the views of key actors relating to the WPL in the UK.

To this end, a web-based self-completion questionnaire was used to identify the views of key stakeholders within local authorities with the power to introduce a WPL with respect to these issues. The following sections will outline who the key actors relating to the WPL were and an explanation of what a survey is. This will be followed with a justification of why a survey was chosen as well as the reasons behind the decision to use a web-based survey compared with the other methods available. This will be followed by an explanation of the methods employed to analyse the results.

Research Survey

Although surveys have been previously identified as a type of research design, they are also seen as a method or tactic to collect the relevant data. Indeed Robson (2011, pp237-238) stated that:

'There is a sense in which surveys are a research strategy (i.e. an overall approach to doing social research) rather than a tactic or specific method ... However, many of the concerns in doing a survey are not so much questions of overall strategic design but more with highly practical and tactical matters such as the detailed design of the instrument to be used (almost always a questionnaire, largely or wholly composed of fixed-choice questions), the sample to be surveyed and obtaining high response rates.'

To this end, the survey used in this thesis is a method which is part of the overall case study design. The type of questionnaire, obtaining a high response rate and the type of analysis undertaken will be covered in the subsequent sections. First the key actors will be highlighted because of the influence this sample has on the type of survey employed.

Research Survey: Key Actors relating to the WPL in the UK

The views of key actors within local authorities with the power to introduce a WPL were required in order to understand the likelihood of other local authorities introducing a WPL, the barriers preventing adoption as well as the views with respect to wider transport related issues. The power to introduce a WPL is limited to transport authorities and therefore the survey sample included Unitary, County, Metropolitan Districts and London Borough councils. For the case of Metropolitan areas, transport is usually managed by an overarching Integrated Transport Authority that is responsible for a cohesive transport strategy for the individual districts. To this end, the views of both the overarching Integrated Transport Authority as well as the individual Metropolitan districts were collected. This was because although the decision for introducing a WPL is ultimately the responsibility of the Integrated Transport Authority, the views of each of the individual Metropolitan districts was deemed important as it would influence the collective strategy. An example was that the views of both Greater Manchester Integrated Transport Authority as well as individual districts such as Manchester, Salford and Bury were collected. Table 4.11 provides an outline of the councils that were contacted.

Table 4.11 – Transport Authorities in England

Type	Number of Councils
Unitary Authority	55
County Councils (Two-tier)	27
Integrated Transport Authority (Metropolitan Borough)	6
Districts of Metropolitan Boroughs	36
London Boroughs	32
City of London	1
<i>Total</i>	<i>157</i>

A full sample population was used which meant the views of 156 out of the 157 authorities (excluding NCC) were required. NCC were omitted from the sample on the basis that they had already implemented a WPL. For each of the 156 authorities, one transport Officer and one transport Councillor were contacted in order to obtain a response; this meant 312 surveys were distributed. The survey was sent to both one Officer and Councillor in order to ascertain if there was a difference in their perceptions with respect to transport related issues and the WPL. This sample influenced the survey method used and will be explained in the following section.

Research Survey: Type of Questionnaire

In order to obtain the views of the different respondents, a self-completion questionnaire was chosen. Bryman (2004, p698) described a self-completion survey as a 'questionnaire that the respondent answers without the aid of an interviewer'. They are normally carried out when 'you know what kind of information you want to collect' and 'are carried out for descriptive purposes' (Robson, 2011, p242). Most surveys come in the form of questionnaires and there are three main ways in which they be administered; these are presented in Table 4.12.

Table 4.12 – Types of Survey

Type	Description
Self-completion	Respondents fill in the answers by themselves. The questionnaire is often sent out by post (or, increasingly, using the internet) permitting large samples to be reached with relatively little extra effort.
Face-to-face interview	An interviewer asks the questions in the presence of the respondent, and also completes the questionnaire.
Telephone interview	The interviewer contacts respondents by phone, asks the question and records the responses.

Source – Robson, 2011, p243

Although there are significant advantages and disadvantages to each of the approaches, a self-completion survey was decided upon for a number of reasons. This is because they are seen to be cheaper to administer than face-to-face interviews particularly when the sample is spread wide geographically and are quicker than face-to-face and telephone interviews as they can be distributed all together (Bryman, 2004, p217). Face-to-face and telephone interviews tend to be more time consuming because of the time associated with respect to undertaking each individual interview as well as transcription if necessary (Bryman, 2004).

Specifically relating to self-completion questionnaires, postal surveys can take a considerable period of time as they need to be sent and returned by post. These timescales however, can be significantly reduced if a web based self-completion questionnaire can be administered. Additional benefits of self-completion questionnaires are that they can be completed anonymously and at a time and speed suitable for the respondent.

To this end, a self-completed web based survey was used in order to collect the views of Officers and Councillors from the different local authorities. The main reason for this decision was due to the time and resources available as well as the number and geographical spread of the respondents. Although a lack of internet access can be a problem with internet based survey, in this instance it was deemed suitable as it was identified that all respondents were likely to have internet access (Robson, 2011).

The web based questionnaire was developed using Bristol Online Survey (Bristol Online, 2013). The licence for this survey design software is purchased by Loughborough University which meant the survey could be developed at a low cost. It also meant that the Loughborough logo was displayed on

the survey and the webpage link contained the Loughborough University web address which may have improved the response rate by appearing official. The site provided guidance with respect to developing the survey and presented the questionnaire clearly and concisely for the respondent making it easy to follow; this is an important consideration for survey design (Bryman, 2004).

Some issues identified with surveys however is that they can suffer from low response rates. 'Respondent fatigue' can lead to respondents not completing the questionnaire which can be caused by too many questions (Bryman, 2004, p218). An additional difficulty with self-completion questionnaires is that researcher cannot probe or prompt respondents if the questions are not understood. These issues can be reduced however, by carrying out pilot studies and limiting the number of open questions in the self-completion survey (Bryman, 2004, p218).

For this reason, the survey was designed in order to maximise the response rate. This included consideration for the style and number of questions, the format in which the respondent received the survey as well as allowing the respondent to remain anonymous. In addition to this, a pilot study was undertaken to ensure the survey questions served the purpose and ensured the correct data is obtained. Bryman (2004, p247) highlighted how piloting ensures 'the research instrument as a whole functions well' which can be crucial for self-completion questionnaires 'since there will not be an interviewer present to clear up any confusion'. The pilot study respondents for this research were people who were knowledgeable on the WPL; this included Officers, Councillors and academics. The respondents were asked to answer the survey from the perspective of them working for a local authority and employees from NCC provided useful feedback with respect to the pilot survey as they were exempt from the main survey on the basis they had already implemented a WPL.

The survey comprised primarily of closed questions. The advantages associated with closed questions is the ability to compare answers, the data is easier to process for the researcher, it is quicker and easier for the respondent and provides clarity for the respondent of what the question is asking (Bryman, 2004). A disadvantage however, is that it can limit what a respondent can tell the researcher as information may be lost if the respondents answer does not fit in the categories provided. To mitigate this, two open questions were provided to allow respondents to answer in their own terms so that new knowledge from the respondents could be gathered without predetermining their answer (Bryman, 2004). These questions were made optional for the respondent to reduce the potential negative impact of the longer time periods associated with open ended questions. The questions were designed to avoid common issues such as leading questions, questions that ask two things, technical terms that the

respondent may not understand as well as balanced answers that do not favour either a positive or negative response (Bryman, 2004).

The majority of the questions were in a 5-point Likert scale format. This meant that the responses were obtained using statements and Table 4.13 provides some examples of the responses that were included in the survey.

Table 4.13 - Likert Scale Responses

Numerical Code	Agree	Concern	Acceptable
1	Strongly disagree	Very unconcerned	Very unacceptable
2	Disagree	Unconcerned	Unacceptable
3	Neither agree nor disagree	Neither concerned nor unconcerned	Neither acceptable nor unacceptable
4	Agree	Concerned	Acceptable
5	Strongly agree	Very concerned	Very acceptable

The Likert scale is designed to measure the intensity of a respondent's view with respect to a particular area. For example, a respondent can either 'agree' or 'strongly agree' depending how strongly they agree with a given statement or can respond neutrally by selecting the middle answer such as 'neither agree nor disagree'. A Likert scale also allows the responses to be coded numerically in order to allow statistical analysis to be undertaken.

In the main study, the email address of the lead Officer and Councillor from each local authority was obtained from the Municipal Year Book (MYB, 2012). This allowed the correct respondents to be reached via email in order to complete the web based survey. In the event of the respondent no longer being in the given role, a secondary email address was obtained for the correct respondent through correspondence with the given authority. The main survey was distributed in November 2013 and in order to maximise the response rate, two subsequent reminders were sent in December 2013 and January 2014. Appendix B presents the questions that were asked as well the survey design as it appeared on the webpage.

Research Survey: Data Analysis Theory and Practice

Once the data had been collected, the results were downloaded into Microsoft Excel where the data was checked and cleaned. The reason for this was to ensure only complete responses were considered and to code the data into a numerical format to allow for statistical analysis. This was used to analyse the data and was aided by the use of a statistical package; namely IBM SPSS Statistics (SPSS). A single master file was created with the coded data and then copies were made that could be manipulated without jeopardising the original data.

To analyse the results, first descriptive statistics were undertaken using SPSS as they summarise and 'indicate important aspects of a data set' (Brace et al, 2009, p55). Specifically cross tabulation was used to indicate the collective views of the respondents with respect to the different questions. These views were compared based on the type of authority and the role of the respondent. To ensure the key findings are highlighted, graphs and tables were used where appropriate.

In addition to the presentation of simple descriptive statistics, further meaning of the data was investigated using more complex statistical techniques; namely binary logistic regression. The purpose of undertaking more complex statistical analysis was to try and understand the key variables that influenced whether or not a local authority was likely to consider introducing a WPL.

Research Survey: Which model to use?

To generate meaning of the key variables, a statistical model was identified as the optimum approach for understanding the data. 'A model is a representation of the world, but it is rarely a perfect representation ... [as] there will always be some differences between the model and the world, that is some error' (Miles and Shevlin, 2003, p1). Model-building in statistics is used in order 'to find the best fitting and most parsimonious, yet biologically reasonable model to describe the relationship between an outcome (dependent or response) variable and a set of independent (predictor or explanatory) variables' (Hosmer and Lemeshow, 2000, p1). For the purpose of this research, the investigation was with respect to the likelihood of a local authority considering introducing a WPL (outcome variable) based on the views of the respondents with respect to transport related issues and the WPL (explanatory variables).

Different types of models were explored and Hosmer and Lemeshow (2000, p1) indicated that 'the most common example of modeling ... is the usual linear regression where the outcome is assumed to be

continuous'. Continuous implies that a response to a question can be measured and includes interval or ratio variables. These measurements have equal intervals and the distance between the responses represent equal differences (Field, 2012); examples include weight or height of a person.

The dependent variable used in this research, was 'do you think you are likely to consider introducing a WPL in the next ten years?'. The answers available to the respondent were 5-point Likert scales ranging from strongly agree to strongly disagree. Although these responses could be seen as continuous from positive to negative, the intervals between the answers cannot be assumed to be equal and therefore the data is categorical. Categorical data is the term used when 'entities are divided into distinct categories' (Field, 2012, p11). This is the case for binary variables (where there are two categories such as gender); nominal variables (where there are more than two categories such as type of authority, e.g. Unitary, County, Metropolitan, London Borough); and ordinal variables (more than two categories but they can be ranked into a logical order such as a fail, pass, merit or distinction in an exam).

Answers using a 5-point Likert scale would therefore infer an ordinal variable as the responses can be ranked. However, the purpose of carrying out further statistical tests was in order to understand if there were any views in the survey that were influential for authorities interested in a WPL. For this reason, the responses were coded into binary dummy variables. This meant respondents that stated strongly agree or agree were coded as 1, or yes they were likely to consider introducing a WPL in the next ten years; whilst the respondents who answered with strongly disagree, disagree, or neither agree nor disagree, were coded as 0, or no they were not likely to consider introducing a WPL in the next ten years. Although respondents who answered with neither agree nor disagree (or indeed disagree or strongly disagree) may consider introducing a WPL in the next ten years, it was important to understand the key independent variables for respondents who specifically stated they were likely to consider introducing a WPL.

As the dependent variable used in the model was not continuous, a linear regression model was not suitable. Hosmer and Lemeshow (2000) stated that when the outcome variable is binary or dichotomous, then a logistic regression is the best model to use. Field (2012, p761) states that logistic regression allows a researcher to 'predict which of two categories a person is likely to belong to given certain other information'. To this end, a binary logistic regression model was chosen.

Unlike linear regression models, the relationship between variables in binary logistic regression is not linear. Field (2012, p762) highlighted that for a 'linear regression model to be a valid model, the observed data should have a linear relationship'. However Berry (1993) argued that if the outcome is categorical, this assumption is violated. To solve this issue, the data can be changed using a logarithmic transformation which 'is a way of expressing a non-linear relationship in a linear way' and therefore expresses the 'regression equation in logarithmic terms (called the logit) and thus overcomes the problem of violating the assumption of linearity' (Field, 2012, p762).

Logistic regression predicts 'the probability of Y occurring given known values of X_1 (or X_s)' (Field, 2012, p762). Related to this research, Y is the dependent variable which was 'will you consider introducing a WPL in the next ten years' and X_s are the survey questions which were used to estimate the probability of Y. The equation to estimate the probability of Y occurring with several predictor variables is:

$$P(Y) = \frac{1}{1 + e^{-(b_0 + b_1X_{1i} + b_2X_2 + \dots b_nX_{ni})}}$$

$P(Y)$ represents the probability of Y occurring, e represents the base of natural logarithms, b_0 the constant, x the predictor variables and b the coefficient attached to that predictor. The outcome will be between 0 and 1. A value close to 0 indicates that Y is very unlikely to have occurred and a value close to 1 indicates that Y is very likely to have occurred. The logistic regression equation has its own parameter represented by b . A parameter is 'estimated from the data (rather than being measured) and are (usually) constants believed to represent some fundamental truth about the relations between variables in the model' (Field, 2012, p44). These parameters are estimated in logistic regression using maximum-likelihood estimation, 'which selects coefficients that make the observed values most likely to have occurred ... and the chosen estimates of the b s will be ones that, when value of the predictor variables are placed in it, result in values of Y closest to the observed values' (Field, 2012, p763).

In order to assess the model, a log-likelihood test can be used. This measure compares the observed and predicted values and can be used to assess the fit of the model. The log-likelihood is calculated by summing the probabilities associated with the predicted and actual outcomes (Tabachnick and Fidell, 2012). The equation for estimating the log-likelihood value is:

$$\sum_{i=1}^N [Y_i \ln(P(Y_i)) + (1 - Y_i) \ln(1 - P(Y_i))]$$

Y_i represents the actual outcome for the i th respondent and $P(Y_i)$ indicates the probability that Y occurs for the i th person based on the results from the model. Both the values for probability and observed outcomes will be between 0 (the outcome did not occur or no chance of the outcome occurring) and 1 (the outcome did occur or the outcome will certainly occur). Field (2012, p763) stated that 'the log-likelihood statistic is analogous to the residual sum of squares in multiple regression in the sense that it is an indicator of how much unexplained information there is after the model has been fitted'. A large log-likelihood value would therefore indicate a poorly fitting statistical model as it would illustrate an increased number of unexplained observations. The figure usually reported is the -2 log-likelihood value which represents the deviance of the model; the equation for this is:

$$\text{Deviance} = -2 \times \text{log-likelihood}$$

The deviance is closely related to the log-likelihood and is often referred to as -2LL because of the way it is calculated. This value aids comparing different models as the difference between the deviances provides an initial indication of which model is better. The model can also be compared to the baseline state model using only the constant which outlines the improvement the predictor variables contribute to the model. Furthermore the chi-squared coefficient can be calculated using the -2LL values in the following equation:

$$\begin{aligned} \chi^2 &= (-2LL(\text{baseline})) - (-2LL(\text{new})) \\ &= 2LL(\text{new}) - 2LL(\text{baseline}) \\ df &= k_{\text{new}} - k_{\text{baseline}} \end{aligned}$$

By subtracting the baseline model deviance (model with only the constant included) from the deviance of the new model, the chi-square coefficient can be understood. Field (2012) indicates that 'this difference is known as a likelihood ratio and has a chi-square distribution with degrees of freedom equal to the number of parameters, k , in the new model minus the number of parameters in the baseline model'. Furthermore the degrees of freedom of the chi-square coefficient is calculated by subtracting the number of variables in the baseline model (only the constant and therefore always 1) from the number of variables in the new model. Understanding the degrees of freedom is important as it

determines the significance of the chi-square coefficient based on the number of independent variables in the model (Brace et al, 2009). The chi-square coefficient can be interpreted to understand how well the model performs at predicting the outcome variable. The aim is to achieve a low -2LL value and therefore high chi-square coefficient.

A further test that can be used in order to understand the accuracy of the model is Cox and Snell's R^2 and Nagelkerke's R^2 . Cox and Snell's R^2 is calculated using the deviance of the new model, deviance of the old model and the number of respondents; the equation is:

$$R_{CS}^2 = 1 - \exp\left(\frac{(-2LL(new)) - (-2LL(baseline))}{n}\right)$$

However, although the Cox and Snell R^2 value that is produced is between 0 and 1, it can never reach its theoretical maximum of 1 which can make it difficult to interpret. For this reason, Nagelkerke (1991) made the following changes to produce Nagelkerke's R^2 :

$$R_N^2 = \frac{R_{CS}^2}{1 - \exp\left(\frac{-2LL(baseline)}{n}\right)}$$

The higher the Nagelkerke R^2 and Cox and Snell's R^2 values, the better the model accuracy. Field (2012, p765) outlined that a value of 1 indicates that the model predicts the outcome variable perfectly and 0 indicates that the predictors are useless at predicting the outcome. The final equation which will be discussed is the Hosmer and Lemeshow test which measures 'how much the badness of fit improves as a result of the inclusion of the predictor variables' (Field, 2012, p765); the equation for the Hosmer and Lemeshow test is:

$$R_{HL}^2 = \frac{(-2LL(baseline)) - (-2LL(new))}{-2LL(baseline)}$$

A value closer to one indicates that the null hypothesis, the model is good, can be accepted. If the P value is less than 0.05 then the null hypothesis can be rejected as the model does not adequately fit the data (Brace et al, 2009). Despite the differences in the way these different R^2 values are calculated and indeed the value that is produced, Field (2012, p766) indicates that 'conceptually they are somewhat

the same...and in terms of interpretation...they provide a gauge of the substantive significance of the model'.

The final results that require interpretation is the individual contribution of the predictors on the model. First the individual predictors can be deemed significant to the model if it has a P value of <0.05 . In order to assess the impact of individual predictors, the odds ratio (the exponential of B) is used as it provides 'an indicator of the change in odds resulting from a unit change in the predictor' (Field, 2012 p766-767). The result can be interpreted by stating that 'if the value is greater than 1 then it indicates that as the predictor increases the odds of the outcome occurring increase...conversely, a value less than 1 indicates that as the predictor increases, the odds of the outcome occurring decreases' (Field, 2012, p767). The Wald statistic provides additional information with respect to the individual contribution for each of the predictors. A confidence interval of 90% will also be reported to outline the 'boundaries within which we believe the population will fall' (Field, 2012, p55). Robson (2011, p425) outlined that '95 per cent limits are commonly used, but others can be obtained'. These values are important because if the confidence interval contains 1, then the predictor could indicate that the odds of the outcome occurring both increase and decrease and therefore the influence of the predictor variable on the outcome variable cannot be trusted. The aim is to achieve confidence intervals where the lower and upper limit are both either above or below 1.

This section has outlined the theory behind why binary logistic regression was chosen for this thesis and an explanation of how to interpret the results. The next section will focus on the model building process.

Research Survey: Binary Logistic Regression Practice

In order to predict the outcome of the dependent variable, the majority of the questions from the survey were highlighted to have the potential to be important predictors as to whether a local authority were likely to consider introducing a WPL in the next ten years. To this end, the responses were coded into dummy variables. This meant that for the majority of the questions there was a positive (e.g. 'strongly agree' and 'agree'), neutral (e.g. 'neither agree nor disagree') and negative (e.g. 'strongly disagree' and 'disagree') variable. In all cases, the neutral variable was used for the reference case and where necessary was coupled with the positive or negative dummy to form a collective reference case. An example of the dummy coding is presented in Table 4.14.

Table 4.14 – Example of independent variable dummy coding

If your Local Authority were to introduce a WPL, would it be introduced primarily to reduce congestion			
Response	Variable 1 - Agree	Variable 2 - Neutral	Variable 3 - Disagree
Strongly Agree / agree	1	0	0
Neither agree nor disagree	0	1	0
Strongly disagree / disagree	0	0	1

The reason for this was in order to understand the influence of the respondent given the fact that they responded to a given question either positively or negatively. This would mean that the likelihood of a local authority considering introducing a WPL could be understood if for example the respondent stated that political stability was an issue or if they perceived a WPL as an acceptable measure for reducing congestion.

In the event of there being more than one independent variable for predicting the outcome variable, as was the case for this research, there are different approaches that can be employed to build the model when using statistical packages such as SPSS. A stepwise method is an approach where the predictors are entered in to the model based on a purely mathematical criterion. For example, the forward stepwise method operates by searching ‘for the predictor that best predicts the outcome variable – it does this by selecting the predictor that has the highest simple correlation with the outcome ... [and] if this predictor significantly improves the ability of the model to predict the outcome, then this predictor is retained in the model and the computer searches for a second predictor’ (Field, 2012, p322). The second predictor is then chosen on the basis that it has the largest semi-partial correlation with the outcome which is influenced by the first predictor selected. Although this approach could be seen to select the most important predictor variables, Field (2012, p323) stated ‘that many writers argue that this [stepwise method] takes many important methodological decisions out of the hands of the researcher ... as slight statistical differences may contrast dramatically with the theoretical importance of a predictor to the model’. Furthermore, as Menard (1995) outlined, stepwise methods are best used when causality is of no interest and you merely wish to fit a good model to your data. Therefore as the purpose of the model is to try and provide some explanation of why local authorities are interested in a WPL, the stepwise approach was deemed unsuitable.

For these reasons, Field (2012, p768) indicated that ‘it is best to use hierarchical methods and to build models in a systematic and theory driven way’. That is to include predictor variables based on theory that they are likely to have an influence on the outcome variable. The theory for this research is driven

from the literature and interviews with respect to gaining an understanding of the potential difficulties of, as well as the reasons for introducing a WPL.

To this end, a hierarchical method was used. This meant the process was 'to first fit the model that includes all the potential predictors, and then systematically remove any that don't seem to contribute to the model' (Field, 2012, p768). The purpose of this is to achieve the most parsimonious model. 'Parsimony refers to the idea that simpler explanations of a phenomenon are preferable to complex ones ... in other words, do not include predictors unless they have explanatory benefit' (Field, 2012, p768).

To check the accuracy of the model, a multicollinearity test ensures that correlation between the predictor variables is not a concern. Issues associated with multicollinearity include problems associated with 'the standard errors of the b coefficients ..., it limits the size of R ..., [and it] makes it difficult to assess the individual importance of a predictor' (Field, 2012, p325). However using SPSS, there is no standard test to understand multicollinearity for logistic regression therefore, a linear regression with collinearity diagnostics was undertaken with the same dependent and independent variables to highlight any issues with multicollinearity between the predictors. In order to interpret the results, the tolerance and VIF values for each predictor variable are required. A tolerance value less than 0.1 (Menard, 1995) and VIF values greater than 10 (Myers, 1990) indicate that there is an issue with multicollinearity. Once the most parsimonious model had been identified, multicollinearity test undertaken, the results were interpreted and key findings highlighted; the results can found in chapter 8.

4.7 Chapter Summary

This chapter began by outlining the research paradigm of the researcher as well as the research gap the research approach was designed to address. It then highlighted the mixed-methods case study design that was adopted for the research approach in this thesis. The influence the theoretical framework had on the research approach has been presented and was justified with wider method literature. For the case study design, a single case, multiple units of analysis approach was adopted and was split into three sub-case studies. First, a Policy Transfer sub-case study was used to understand and explore the potential role of the Policy Transfer framework for the WPL. This was followed by a sub-case study of Nottingham which was designed to address the reasons why a WPL was implemented in Nottingham as well as the issues that arose, the likely impact and the likelihood other authorities would adopt the measure. The methods used for this was a Nottingham documentary

analysis and semi-structured interviews. The final sub-case study addressed the national perspective. This was to understand the view of key stakeholders within local authorities with respect to transport related issues and the WPL. This data was obtained using a national documentary analysis, two interviews and a self-completion web-based questionnaire.

The next chapter will describe the national review of the WPL and will provide the foundation and background to the WPL in the UK setting.

Chapter Five: Background to the Workplace Parking Levy in the UK

5.1 Introduction

The purpose of this chapter is to provide a review of the national documentation with regards to the WPL. It will describe the reasons why a WPL was developed, the initial local authority interest, the support provided by central government to encourage local authorities to adopt charging schemes as well as the current Government position in order to understand possible future adoption of a WPL. A brief summary will then be provided of the data from this documentary analysis.

The final section will present the results of two interviews. The first was with a former senior civil servant who worked for the Department for the Environment, Transport and the Regions (DETR) during the years in which A New Deal for Transport: Better for Everybody (DETR, 1998a) and the Transport Act 2000 (Acts of Parliament, 2000) were published. The second interview was with a senior official who took the legislation through the Houses of Parliament and headed the congestion charging division.

5.2 Policy Background to the Workplace Parking Levy

Interestingly, the WPL was not the first tax on workplace parking to have been adopted in the UK. Taxation on workplace parking previously existed but was abandoned in 1988 due to the administrative difficulties for the Inland Revenue and employers in assessing liability (House of Commons, 1999a). Although it was scrapped, there was still the view 'that the availability of convenient, guaranteed, free or cheap parking is a major factor in influencing people's decision to drive to work' and that local authorities would therefore benefit from powers to control it (HMSO, 1996, p104). This was because IPPR (1996) estimated there were three million parking spaces at commercial premises in the UK which were un-taxed and outside of local authorities control. Although the Conservative Government in 1996 recognised the problem this created, their official position with respect to workplace parking was they 'would not favour allowing the taxation of private non-residential parking if it was being used primarily as a revenue raising measure rather than as an anti-congestion measure' (HMSO, 1996, p104).

The new Labour Government however assessed the possibility of taxing private non-residential parking and in the 1998 Transport White Paper – A New Deal for Transport - stated they would ‘introduce legislation to enable local authorities to levy a new parking charge on workplace parking’ (DETR, 1998a, p105); this would later become known as a WPL. Despite the administrative difficulties of collecting the previous parking tax, the WPL would be introduced by local authorities and would charge employers in their administrative area a levy based on the number of parking spaces they provide for their employees.

The first reason for a WPL was ‘to accommodate those local authorities who wished to control demand for road travel to city centres but who had indicated, during the consultation processes, that they did not consider road user charging to be an appropriate solution for their locality’ (Bonsall and Milne, 2003, p260). This was on the basis that authorities with a small administrative area would not benefit from a RUC scheme as the implementation and operational cost is such that the scheme would make small amounts of surplus revenue in order to deliver a package of measures. This was less of a concern for a WPL as the introduction and operational costs were seen to be much lower.

Second, Bonsall and Milne (2003, p260) highlighted the ‘demand for road travel could be influenced via the price of parking but, although local authorities could influence the price of on-street parking and public off-street parking, they had no control over the price of private non-residential parking (which often comprises up to 50% of total parking capacity in UK city centres)’. Furthermore, whilst local authorities ‘can use their development control powers to limit the amount of parking associated with new development ... in the past, development was allowed with extensive parking provision, considerably in excess of the standards advocated in current Government guidance’ (DETR, 1998a, p105) which has led to excess parking, which is often free, such as the workplace. For this reason it was stated ‘there is a strong argument for raising a levy on workplace parking, which in most cases represents an untaxed benefit in kind. Given the market value of off street parking in central London this untaxed benefit can be as high as £5,000 a year. This clearly represents a financial incentive to driving to work and it has been estimated that as many as 70 per cent of those who drive to work in central London have reserved free parking provided’ (House of Commons, 1999b).

To this end the government introduced legislation to allow local authorities to introduce a WPL as ‘new measures are needed to tackle excessive workplace parking provision at existing developments so local authorities can develop comprehensive parking management policies that support their transport and development plans’ (DETR, 1998a, p105). It further highlighted that ‘the aim is to reduce the

amount of parking available as a means of reducing car journeys and increasing use of public transport, walking and cycling ... and a vital element in the effectiveness of the policy will be the use made of the proceeds to improve transport choice locally'.

Whilst parking at other developments such as at out of town shopping centres and leisure facilities also contribute to congestion, 'the effects are not as concentrated in peak hours when compared with commuting journeys' (DETR, 1998a, p106). Furthermore, a tax on these spaces 'would be absorbed entirely by the retailer in which case it would be ineffective, or it could be passed on to the consumer in higher prices, which would be unfair to those without cars, often poorer members of society' (Butcher, 2012, p4). For this reason, levies on these types of spaces were not recommended in the White Paper. Instead, recommendations were made to assess the results of WPL schemes which would act as a pilot for future levies on these types of spaces. Despite these claims, Docherty (2003, p13) argued the other types of parking 'were dropped from the final document at the last minute, following media discontent and concerted lobbying from particular business groups such as the supermarkets'. The Government did however recommend that for any new developments with these types of spaces, there should be good access by public transport and the number of parking spaces should be the minimum necessary.

Prior to giving local authorities power to introduce a WPL in the Transport Act 2000 (Acts of Parliament, 2000), consultation was undertaken assessing the issues with such a scheme and welcoming any views with respect to the legislation that would be made; this was titled "Breaking the Logjam" (DETR, 1998b). The government's views with respect to some of the potential issues associated with a WPL are highlighted in Table 5.1 along with proposals for the legislation.

Table 5.1 – Government view and response to WPL issues

Issue	Government Response
Boundary	Levy can apply across the whole of an authority's area or in designated parts. However, the boundaries are expected to be designed so the levy impacts on congestion, traffic growth and planning objectives rather than simply generating revenue.
Consultation	Does not specify the need for a public consultation before an order to establish a levy is made. Government therefore proposes there should be simply be a requirement on the authority involved to inform the public and give consideration to representations.
Exemptions – type of vehicle	Only vehicles used for the journey to work or in the course of personal business should be subject to the levy. This makes it clear and easier for businesses to predict the number of vehicles their licence needs to cover and reinforces Governments wish to address peak period congestion caused by commuters. Emergency vehicles exempt.
Exemptions – employee hours	No specific exemptions for employees who are required to work unsocial hours. This is on the basis these employees are likely to be in the minority compared with employees who work during social hours, and are therefore likely to be covered by the licence.
Exemptions – employers with priced parking	As some businesses already charge employees for parking, there is an argument to exempt these businesses as their pricing decision already impacts motorist's travel. However, Government was not convinced by merits of the argument or the practicalities of exempting these businesses because it would be necessary to ensure the charge was not a token one and was not returned to drivers by other means. What's more, it has also been suggested that businesses that fund alternative modes should be exempt or receive a concessionary rate. However, whilst Government was keen to promote green travel plans to encourage employees to use alternatives instead of driving to work alone, such arrangements will lead to reduced parking provision, thus the employer receiving a benefit from a reduced WPL bill.
Exemptions – number of vehicles	Initial preference to exempt a small number of vehicles parked at a site such as the first 5 or 10 vehicles in order to reduce the administrative effort and cost required to target small sites. An alternative might be to impose the levy on spaces in excess of the current planning standard. Whilst attractive in theory, the administration was highlighted to be difficult as an assessment would be required on a building-by-building basis. It would also be necessary to recognise the degree of arbitrariness of such an approach given the range of standards across the country.

Source –DETR, 1998b

Table 5.1 therefore outlines some of the key issues raised by the public in the Government consultation document as well the Government's response. In addition to these concerns, further issues were raised with regard to the potential knock on effects. For example, whilst the government wanted to tackle congestion in town centres, they 'do not want it to do this by encouraging development at edge-of-town locations in preference to central areas. Local authorities may therefore want to apply the levy across a

broad area, to avoid the distortion which might otherwise occur' (DETR, 1998b, p8). What's more, 'it needs to be recognised that a levy on workplace parking would not have an impact on through traffic, and could even attract more of it onto town centre roads if they became less congested. Its contribution to transport, planning and environmental objectives will therefore be closely linked to the adequacy of the package of complementary measures, such as public transport improvements, using the money generated by the charge' (DETR, 1998b, p9). Following this consultation, the culmination of ideas became legislation in the Transport Act 2000 (Acts of Parliament, 2000) when the UK government formally gave powers to local authorities to introduce a RUC or WPL. Similar powers were also written into The Greater London Authority Act for the capital (Acts of Government, 1999).

5.3 Development of the Workplace Parking Levy

Whilst the Transport Act 2000 was going through Parliament, the Government released a document entitled 'Transport Ten Year Plan 2000'. This was designed to 'deliver the scale of resources required to put integrated transport into practice ... [and] deliver radical improvements for passengers, motorists, business - and all of us as citizens concerned about congestion, safety and a better environment' (DETR, 2000). The Ten Year Plan 'takes a realistic view of the challenges we face and presents an ambitious vision of what we can achieve by 2010' (DETR, 2000, p5). One such target was a reduction in congestion on the road network by 2010 based on traffic levels in 2000. This would be achieved, in part, because the Government 'assumed that eight of our largest towns and cities will introduce congestion charging schemes and a further twelve will bring in workplace parking schemes over the next decade' (DETR, 2000, p44). What's more, it assumed schemes may be in place as early as 2003 once public transport improvements have been realised and by 2010 London will have generated £1.5 billion and local authorities a further £1.2 billion from the introduction of charging schemes (DETR, 2000). These targets and assumptions were not met.

Despite this, in an attempt to ensure the targets were met, the Government set up the Charging Development Partnership (CDP) which was 'a forum for sharing and exchange of knowledge, ideas and experience about how to take forward the new powers' (House of Commons, 2003). The CDP consisted of 25 authorities that had expressed an interest in a RUC or WPL; these authorities are presented in Table 5.2. It is worth noting, participation in the CDP did not commit an authority to introducing a charging scheme.

Table 5.2 – Participating Members of the Charging Development Partnership

Local Authorities Participating in the Charging Development Partnership (*Denotes initial member in Feb 2000)	
Bath and North East Somerset Council*	Nottingham City Council*
Birmingham City MBC (West Midlands)*	Oldham MBC (Greater Manchester)*
Bolton MBC (Greater Manchester)*	Reading Borough Council*
Bristol City Council*	Rochdale MBC (Greater Manchester)*
Bury MBC (Greater Manchester)*	Salford MBC (Greater Manchester)*
Cambridgeshire County Council*	Sandwell MBC (West Midlands)*
Cheshire County Council*	Staffordshire County Council
Cumbria County Council	South Gloucestershire County Council
Derby City Council	Southampton City Council
Derbyshire County Council*	Stockport MBC (Greater Manchester)*
Dudley MBC (West Midlands)*	Surrey County Council
Durham County Council*	Tameside MBC (Greater Manchester)*
Hampshire County Council*	Trafford MBC (Greater Manchester)*
Isle of Wight Council	Warwickshire County Council
Leeds City Council*	Wigan MBC (Greater Manchester)*
Leicester City Council	Wolverhampton MBC (West Midlands)*
Manchester MBC (Greater Manchester)*	York City Council
Milton Keynes Borough Council*	

Source – House of Commons (2003)

Authorities that were not initial members were all invited to join the scheme following the preliminary meetings on the basis they had shown an interest in the schemes. In 2000 and 2001, CDP meetings were held approximately every two months and covered matters such as 'communications, regulatory requirements, financing, scheme design, operation and impacts, and approval, appraisal and monitoring' (House of Commons, 2003). The initial members of the CDP were allocated funding to finance any necessary improvements to their local transport in order to assist the introduction of a charging scheme (Table 5.3). It is worth noting this funding was supplementary to the Local Transport Plan (LTP) settlements each local authority received.

Table 5.3 – Authorities that received funding to assist with the introduction of charging schemes

Council / Year of Funding	2000-01	2001-02	2002-03	Total
Bristol City Centre	2.25	-	-	2.25
Cambridgeshire County Council	0.6	-	-	0.6
Cheshire County Council	0.55	-	-	0.55
Derbyshire County Council	0.35	0.40	-	0.75
Durham County Council	0.1	0.24	-	0.34
Greater Manchester MBCs (10)	4.5	-	-	4.5
Hampshire County Council	0.3	-	-	0.3
Leeds City Council	2.5	-	-	2.5
Milton Keynes Borough Council	0.25	-	-	0.25
Nottingham City Council	1.2	1.50	1.95	4.65
Reading Borough Council	0.1	-	-	0.1
West Midlands MBCs (4)	5.0	-	-	5.0
Total	17.7	2.14	1.95	21.79

Source – House of Commons, 2003

In addition to this funding, 'once a firm decision to proceed with an urban charging scheme has been taken and costed proposals have been submitted, an authority will also be able to apply to a 'Charging Schemes Fund' for assistance with the capital costs of implementing the scheme' (House of Commons, 2003). However, local authorities (but not the Mayor of London) must first seek approval from the Secretary of State (in England – or the consent of the Welsh Executive in Wales; Scotland and Northern Ireland had their own legislation) before a WPL can be implemented. This approval is based on the following criteria (House of Commons, 2003):

1. 'The scheme should be well founded;
2. It should make a real impact on congestion in its own right;
3. The plans for revenue investment in local transport should be robust;
4. Some improvements to local transport should be in place before implementation; and
5. The necessary technology should be in place to enable the scheme to operate.'

On this basis, improvements to transport prior to the introduction of a charging scheme are important in order to gain Secretary of State approval although the funding for such improvements was not the responsibility of Government. This is because whilst money was available for the initial costs associated with setting up a charging scheme, 'a local authority wishing to bring in a charging scheme will have to

bid for funds for advanced improvements in public transport as part of its Local Transport Plan strategy' (House of Commons, 2003).

An important facet of the charging schemes for local authorities was the hypothecation of the revenue to develop local transport. This is because without this guarantee that every penny 'will be reinvested in local transport, it will be far more difficult to generate the levels of public support which are essential to the successful development and implementation of a charging scheme' (House of Commons, 2003). It was also highlighted that by introducing a charging scheme, existing revenue streams from central government would not be cut to ensure revenue from a charging scheme would be in addition to existing revenue streams and not a replacement. Early adopters of charging schemes had any revenue hypothecated for a minimum of 10 years and beyond this time scale 'would be decided on a case-by-case basis' (House of Commons, 2003). In addition, the level in which local authorities set the charge 'should principally consider the likely traffic management effects of charging schemes, rather than the need to raise a predetermined sum for public transport improvements' (House of Commons, 2003).

By the end of 2001, the frequency of CDP meetings reduced as interested authorities made decisions as to whether a charging scheme was right for their locality. By 2003, the initial optimism with regard to the implementation of charging schemes had waned to the extent that the Department 'indicated that outside London, it does not expect any major urban charging schemes to be implemented until the end of the 10 Year Plan period' (House of Commons, 2003). This view was on the basis that by 2003, there were only four cities that were pursuing urban charging schemes as committed policy; these were London, Bristol, Durham and Nottingham. Despite only four being committed, in 2003 the Department was still working to an estimate 'that, in addition to the London scheme, eight road user charging schemes and five workplace parking levy schemes will be in operation by 2010-11' (House of Commons, 2003).

During a Transport Select Committee in 2003 however, deficiencies were highlighted with how central government were managing the introduction of proposed charging schemes. In the conclusions of the report, it was stated (House of Commons, 2003):

"Charging schemes will not relieve urban congestion overnight. They are not designed to deliver quick political wins. And they can only be expected to cut congestion if they are implemented as part of a package of transport improvements. Such packages have an economic cost, and the Government must

be prepared to bear its fair share of this cost if it is serious about reducing urban congestion. Charging schemes also carry a short-term political cost, and the Government cannot duck this either.

The Government needs to monitor the development of urban charging schemes very closely. If it genuinely believes that these schemes have the potential to deliver significant reductions in urban congestion, it must do more than merely offering these powers to authorities on a 'take it or leave it' basis: it must be willing to support those who take the risks involved in embarking on such schemes. At the very least, the Department should be prepared to provide political backing for local authorities which decide to introduce charging schemes; to identify areas where pilot schemes can best be taken forward; to work in genuine partnership with local authorities to develop and monitor these pilots; to establish robust and meaningful criteria for assessing the success of charging schemes, and to upgrade the Department's 'working assumptions' into a structured programme for rolling out charging schemes in collaboration with local authorities.

The Government has, by default, adopted a twin-track approach to the introduction of urban charging schemes. This, more than anything else, has contributed to muddle in departmental policy. Outside London, the Government has acted, at best, as a facilitator of urban charging schemes. It has barely acted as an enabler, and it has certainly not acted as a leader. It was willing to commission a review of charging options for an authority which was not then even established, but it has shown far too little focus on the areas where local authorities have needed genuine support in getting charging schemes off the ground.

We have found a good deal to commend in the Government's approach to urban charging schemes. It has secured legislation which enables authorities to bring in charging powers without the need to resort to the delay and expense of the private bill procedure. It has established the principle of hypothecating revenue from charging schemes to fund local transport improvements. It has laid down framework criteria for the approval of individual schemes which appear sensible. It has established a forum for the development of schemes, and it has made funding available for preparatory work. But instead of driving forward its policy, it has now decided to hang back. With a different attitude, and more urgency, it could by now have achieved much more. Local authorities planning to introduce charging schemes will not be able to do so unless they can muster sufficient public support. They cannot do this if the Government is seen to be standing outside the debate, acting as a brake rather than as a leader.

We do not doubt the Government's genuine willingness to address the issues of urban congestion. But its policy towards charging schemes is now drifting, awaiting events; and its overall approach to the introduction of urban charging consequently risks being fudged, muddled, compromised and undermined. It is time for the Government to take a more constructive and focussed approach to the real problems of urban congestion, and to promote the use of charging schemes as a powerful policy tool which can deliver real benefits to all road users."

This view was later supported by Docherty and Shaw (2011, p235) as it was highlighted that 'it is difficult to avoid the conclusion that New Labour's ministers were just not interested enough in promoting more sustainable transport to invest sufficient thought and take the political risk (such as it actually is) necessary to push for major change in both the amount and the manner in which we travel'. Docherty and Shaw (2011, p247) also stated that it 'is important to state that Labour's approach to transport did not fail because it identified the wrong suite of policies – rather, it failed because in government its ministers did not pursue that suite of policies with anything like enough vigour'. However at the time in response to this criticism, in the 2004 White Paper - The Future of Transport: a network for 2030, the Government set up the Transport Innovation Fund (TIF). This fund was set up 'to give our delivery partners incentives to develop and deploy coherent, innovative, local and regional transport strategies' which include road pricing, measures to encourage modal shift, and better use of bus services (DfT, 2004, p18).

This led to Government allocating funding to ten local authorities in 2005 and 2006 to undertake 'feasibility studies as to how local demand management and better public transport could improve travelling conditions for local people' (Butcher, 2010, p4). At a transport select committee, it was suggested whilst parking 'schemes may be less novel than road pricing schemes..., their potential to yield positive traffic management results immediately means that they should be encouraged' and therefore should be eligible for funding under TIF (House of Commons, 2006a). Furthermore in the same report, it was highlighted that 'parking policies have for decades been one of the few immediately available and proven ways of controlling traffic and influencing behaviour. The gap in implementation of workplace parking levies by local authorities is disappointing' (House of Commons, 2006a). Despite this, under the TIF arrangement, DfT stated they were 'most likely to fund packages involving road pricing' and would only consider bids for a WPL in 'exceptional circumstances' (House of Commons, 2006b).

One example of TIF funding was a partnership between the city and county councils from Nottingham, Derby and Leicester. Collectively they were awarded £1.8 million. This funding allowed the authorities

to assess the impact of a RUC in the region as a potential 'long term solution to both reduce congestion and provide funding for improved public transport infrastructure' (NCC, 2007a, p7). The results of this study later fed into the debate surrounding the WPL in Nottingham as it allowed NCC 'to quantify the cost of congestion in the sub-region ... [and was] complementary and rational in that they [WPL and RUC] both aim to address the congestion threat which faces Nottingham' (NCC, 2007a, p8).

Following developments in the Nottingham WPL, the DfT undertook a consultation for a 12 week period 'on regulations to enable enforcement of workplace parking levy (WPL) schemes, not on the principle of workplace parking levy, because the case for allowing local authorities to introduce WPL schemes had been considered during the Bill stages of the Transport Act 2000' (DfT, 2009a, p1). Despite this, the majority of the responses were in regard to the principle of the WPL, particularly in relation to the economic climate at the time. Responses were received from a number of groups including individuals, motoring organisations, businesses, other organisations and local authorities. Table 5.4 outlines the views of the different groups.

Table 5.4 – Views of different groups with respect to the WPL

Group	Who	View
Local Authorities	County Councils – Buckinghamshire, Cumbria, Devon, Norfolk, Herefordshire Unitary Councils – Bournemouth, Kirklees, Newcastle, Nottingham City, St Helens, Solihull, Stockton, Stoke, Windsor and Maidenhead, York District Councils – East Hertfordshire, East Lindsey, North East Derbyshire, Pendle, Rushmoor, Sevenoaks, Test Valley, Welwyn and Hatfield	Nottingham has detailed proposal and Devon is considering a scheme; these are both for urban areas where congestion is a problem and expected to get worse. The others did not have a clear view with respect to how the schemes may work in practice, did not consider them appropriate for their location or present circumstances.
Businesses	Federation of Small Businesses and Forum of Private Business, British Chambers of Commerce, Regional Chambers of Commerce, Confederation of British Industry, Business Centre Association, British Retail Consortium, Sainsbury, Asda	A WPL is a 'local tax rather than an efficient and well-directed measure for tackling road congestion'. Businesses pay business rates of which the cost is subject to the amount of workplace parking supplied
Motorist and Road User Organisations	The AA, the Association of British Drivers, the Road Users' Alliance, the RAC Foundation	Objected on the principle that it was an additional tax on road users and employers during a difficult economic climate The RAC support the WPL as a demand management tool but were cautious about its widespread application. They had the view that road pricing is likely to be more effective than WPL at tackling congestion.
Other Organisations	ACPO, 3 Police Forces (Hampshire, North Yorkshire, West Yorkshire), The Disabled Persons Transport Advisory Committee, British Parking Association, Nottingham Trent University	Concern about the impact of a WPL on police forces if their vehicles were not exempt from the charge. Regulations should require exemptions for parking places used by disabled drivers and that public transport should be suitable for disabled people prior to introducing the scheme. Exemptions should be made for student parking.
Individuals	-	Opposed scheme in general terms, as well as concerns with respect to a lack of suitable alternatives to the car, a likelihood of displaced parking, and imposing an additional cost on business during challenging economic climate.

Source - DfT (2009a)

In response to the points made, the Government stated many of the 'concerns are general and hypothetical' and local authorities should be responsible for many of the decisions as they 'are better placed than central government to assess what the impacts of a local scheme will be' (DfT, 2009a, p7).

What's more, if local decisions are deemed inappropriate, the requirement for the Secretary of State is to approve proposed schemes means that they have the 'power to modify WPL schemes made by local authorities if they contain provisions that do not appear to be justified by local circumstances' (DfT, 2009a, p8). Finally, many of the points raised were with respect to the principle of the WPL which was covered in an earlier consultation and were therefore not appropriate to be re-reviewed at this stage.

Later in 2009, the Prime Minister's Strategy Unit and the DfT undertook a study to explore the influence transport has on a city's success; this was called "The Future of Urban Transport". This Report changed the focus on how funding was allocated. Under the TIF, funding was allocated 'to support local authorities that wanted to tackle the problems of congestion in their areas through a combination of public transport improvements and congestion charging' (DfT, 2010, p1). However, the focus of 'The Future of Urban Transport' was on achieving triple win outcomes ... [and] meant funding would be allocated for projects that improve outcomes for economy, health, and urban environment simultaneously' (DfT, 2009b, p15). These three areas were identified to be influenced by transport and it was therefore suggested transport projects should help cities meet their wider goals. Table 5.5 outlines some of the various costs in urban areas the Government believed transport could influence to deliver a triple win outcome.

Table 5.5 – Various costs in urban areas associated with transport

Triple Win Outcomes	Cost Category	ITAs plus London (£bn)	ITAs only (£bn)	All urban areas with population greater than 10,000 (£bn)
Economy	Excess delays (2009)	£7.6	£3.7	£10.9
Health	Accidents (2008)	£5.1	£3.0	£8.7
	Physical inactivity (1998)	£4.9	£2.7	£9.8
Urban Environment	Poor air quality (2005)	-	-	£4.5 - £10.6
	Greenhouse gas emissions (2003)	-	-	£1.2 – £3.7
	Noise – amenity (2008)	-	-	£3 – £5

Source – DfT (2009b) (ITA = Integrated Transport Authority)

The Government therefore estimated issues that transport can have a positive influence on cost urban areas in England with a population of greater than 10,000 between £38.1-48.7bn annually. What's more, whilst the Government still wanted to reduce congestion and improve journey time reliability, there was a much greater emphasis on health and quality of life. Under the new vision, the Government wanted to

'enhance mobility through a wider choice of journey;...better health as a result of improved safety and much greater levels of walking and cycling; and streets and public spaces which are enjoyable places to be, where exposure to harmful emissions is reduced, and where quality of life is transformed; and a reduced threat from climate change' (DfT, 2009b, p24).

To this end, the Government replaced TiF with an Urban Challenge Fund to 'provide forward looking cities and authorities with an additional incentive to deliver the "triple win" outcomes' and deliver clear benefits in line with the vision outlined (DfT, 2010, p2). In March 2010, the previous Government published a discussion paper 'to encourage debate on the issues around the future transport needs of our cities and urban communities and to invite comments on the plans for a new Urban Challenge Fund' (DfT, 2010, p1). To date, this discussion has not yet been analysed and still requires Government comment.

One explanation as to why the consultation has not been analysed to date could be the change in government in May 2010. When the new government took office, there was 'no explicit mention of TIF' although the coalition agreement indicated an 'intention to "support sustainable travel initiatives, including the promotion of cycling and walking" (Butcher, 2010, p2). Furthermore, Butcher (2010, p2) suggested that 'bearing in mind the government's priority to make savings and cut the deficit, it may be that money will not be available for any 'son of TIF' in the immediate future'. A further explanation highlighted by Goodwin and Lyons (2010, p7) was that 'there is evidence to suggest that people have come to accept congestion as a fact of life' which could suggest that addressing the issues associated with congestion was pushed down the political agenda.

The first mention of the WPL from the new coalition government was in the transport White Paper – 'Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen' – which was published in January 2011 (DfT, 2011a). In this White Paper, it was stated 'local authorities may put forward schemes [WPL], but they must demonstrate that they have properly and effectively consulted local businesses and addressed any proper concerns raised by local businesses during those consultations' before the Secretary of State would approve such schemes (DfT, 2011a, p72).

In December 2011, 'The Red Tape Challenge' was released which examined regulations in the transport sector and was designed to cut 'unnecessary, burdensome and overcomplicated regulation for road transport users' (Butcher, 2012, p3) and business. This report outlined Government would

'strengthen the tests that have to be passed before local authorities can introduce a Workplace Parking Levy on local businesses' (DfT, 2011b, p33). It was also stated that (DfT, 2011b, p25):

'Although we do not propose to amend the Workplace Parking Levy legislation itself, we will require any future schemes to demonstrate that they have properly and effectively consulted local businesses, have addressed any proper concerns raised and secured support from the local business community. This will make sure that future schemes will not impose a burden on business.'

This therefore meant that whilst the new coalition Government were not going to repeal the legislation on the WPL, local authorities would be required to prove they had sought business support with respect to a WPL in order to gain approval from the Secretary of State.

When Nottingham announced its scheme in 2010 however, there was press speculation suggesting other authorities were also considering a WPL; specifically these were Councils from Bristol, York, Devon, Hampshire, Leeds, Bournemouth, South Somerset and Wiltshire (The Daily Telegraph, 2010). Butcher (2012, p3) argued the reason for this was that '[w]ith local authorities facing reductions in income from central government, it would not perhaps be surprising that they might look at alternative ways of raising revenue to invest in things like transport'. However, it was also noted that with the economic climate at the time, local authorities should support the high street and encourage local businesses.

Following the introduction of the WPL in Nottingham in April 2012, a Transport Select Committee was held in 2013 with respect to parking policy. With regards to other interested authorities, Councillor Urquhart, Portfolio Holder for Transport at NCC, stated that 'we have had initial conversations with some of the local authorities about what we have done, but at the moment none has taken any first steps. I think everyone is waiting to see how it goes and whether we do have the impacts on congestion, for example, that we will hope we will have. Of course, those will come when we have also built the public transport alternatives' (House of Commons, 2013a). This indicates the significance of the impact of the WPL in Nottingham in determining the likelihood of other local authorities introducing such a scheme as well as the importance the improvements to alternative transport for reducing congestion. In the same Transport Select Committee, the then Parliamentary Under-Secretary of State for Transport, Norman Baker, gave the following view with respect to the WPL:

'With parking policy generally, I think it should be up to individual towns and cities to decide what is best for themselves. We have a position in Nottingham where the workplace levy is being introduced. In a sense, it will be an interesting experiment to see what the consequences of that are.

Of course, it is not always possible to transpose the experience of one town or city to somewhere else because every city and town is different. What might work for one may not work for others. I know that other places, such as Bristol, are interested in taking this forward. I also know that in Nottingham there has been some resistance to that from businesses, who feel that it may be detrimental to them. Again, we are looking at the Nottingham experience very carefully.

The official Department for Transport position at the moment is that it is up to towns and cities to bring forward such schemes if they want to do so-but we would expect business to be at least neutral on any such scheme. If a business community were wholly opposed to such a workplace scheme ... such a scheme would not go ahead.'

This therefore emphasises the importance of an evaluation of the Nottingham WPL. It also indicates a shift in Government opinion in that businesses would need to be 'neutral' and not 'supportive' of a local authority introducing a WPL. This stance was reinforced at another Transport Select Committee Meeting later in 2013, when it was stated that (House of Commons, 2013b):

'It is difficult for us to judge the Workplace Parking Levy (WPL) scheme in Nottingham because a formal evaluation has not yet been carried out. The evaluation of the WPL scheme is of national interest and if the scheme proves to be successful, we recommend that the Government more actively promote WPL to other local authorities. We welcome the Minister's assurance that the DfT is looking closely at the Nottingham experience and the views of the business community. We expect the Department will follow up on Nottingham's recommendation that the guidance, regulations and legislation for WPL be revisited with a view to making it simpler and fairer to introduce.'

Once more this indicates the need to evaluate the WPL as well as a desire to actively promote the WPL if the Nottingham experience is deemed a success. However, one step that would be required in order to encourage other authorities to adopt a WPL would be to improve the guidance, regulation and legislation for introducing a WPL so that it is 'fairer and simpler'. In conclusion, whilst it is too soon to evaluate the WPL in Nottingham, Councillor Jane Urquhart highlighted that the first year in which the WPL was operational was 'a relatively positive one' on the basis of employer compliance, no issues

with enforcement, as well as securing an income stream to extend the tram network, improve the railway station and subsidise the link bus network (House of Commons, 2013a).

5.4 Summary of UK Documentary Analysis

The UK Government have previously had a parking tax on employer parking as it was recognised as an untaxed benefit. Although this tax was later abandoned due to administrative difficulty with collecting the revenue, the issues associated with uncontrolled private parking were still recognised as the effectiveness of parking strategies was undermined by the lack of control over all the parking supply in urban areas. The reason this was an issue was because parking strategies were identified to be able to deliver significant benefits including a reduction in congestion. To this end, the UK government introduced legislation which allowed local authorities to address the problem caused by private non-residential parking by introducing a levy on workplace parking. The aim of a WPL 'is to reduce the amount of parking available as a means of reducing car journeys and increasing use of public transport, walking and cycling...and a vital element in the effectiveness of the policy will be the use made of the proceeds to improve transport choice locally' (DETR, 1998a, p105). Despite the importance of the use of the proceeds, the level in which the charge is set 'should principally consider the likely traffic management effects of charging schemes, rather than the need to raise a predetermined sum for public transport improvements' (House of Commons, 2003).

Whilst it was identified road pricing is likely to have a greater impact on congestion, in some instances a WPL was identified to be more suitable for smaller authorities for reasons such as higher costs associated with implementing a RUC. This chapter has also covered the national consultation with respect to the legislation, potential issues surrounding the WPL and the steps taken to encourage local authorities to adopt charging schemes if it was identified appropriate for their locality. This support was in the form of monetary aid as well as the establishment of the CDP. Despite this, it has been suggested Government could have done more to enable local authorities to introduce charging schemes if they felt it was the right way forward. This is because it was identified that charging schemes were not designed to deliver quick political wins as they will not relieve congestion instantly and were about long term sustainability. The government therefore 'must be prepared to bear its fair share of this cost if it is serious about reducing urban congestion' and support local authorities with introducing charging schemes (House of Commons, 2003). For these reasons, it was suggested Government passed the 'buck' to local authorities with respect to introducing difficult schemes. A final recommendation was that Government should have developed a structured programme in collaboration

with local authorities opposed to 'assumptions' of the number of schemes that would be introduced and that Government did not pursue the change with enough vigour to realise the results. This did not happen and subsequently only NCC has implemented a WPL to date.

Initially the new Coalition Government's view was that whilst they would not repeal the legislation, there is a requirement for local authorities to demonstrate they have acquired business support for a scheme. Furthermore, the objectives of transport policies introduced now should be more focused on achieving 'triple win outcomes' with respect to health, economy and urban environment, and not solely congestion. More recently however the Nottingham WPL has been described as 'an interesting experiment' which is being looked at 'very carefully' (House of Commons, 2013a). Furthermore, a formal evaluation of the Nottingham WPL is of 'national interest' and if deemed successful, recommendations have been made that Government should 'actively promote WPL to other local authorities' (House of Commons, 2013b); this indicates a more positive view of WPL schemes. Table 5.6 provides a summary timeline of the information presented in this chapter.

Table 5.6 – Timeline of Events for National Policy and Developments of the WPL

Year	Event	Description
1998	A New deal for Transport: Better for everyone (White Paper)	Aim of White Paper was to increase personal choice by improving the alternatives and to secure mobility that is sustainable in the long term. Priority on maintaining existing roads rather than building new ones. Most radical policy was the proposal to give local authorities and the Mayor of London the power to introduce RUC or WPL, with the revenue hypothecated for public transport improvements.
1998	Breaking the Logjam	A review assessing the issues with a WPL including boundaries, consultation requirements and exemptions. Views also welcomed views in order to develop the WPL legislation.
1999	Greater London Authority Act	Legislation that gave power to London Boroughs to introduce a RUC or a WPL.
2000	Transport Act 2000	Legislation that gave power to local authorities in order to introduce a RUC or a WPL.
2000	Charging Development Partnership formed	A forum for sharing and exchange of knowledge, ideas and experience about how to take forward the new powers. Initially consisted of 25 authorities.
2002	Durham City Centre Road User Charging Scheme	Charge to enter a street in the centre of Durham using the RUC legislation enacted in the Transport Act 2000.
2003	Transport Select Committee	Identified that initial interest had waned and that central government needed to be more of an enabler and leader to help local authorities introduce charging schemes.
2003	London Congestion Charging	First area-wide RUC in the UK. Described as 'the most radical attempt to change travel behaviour and reduce traffic congestion by fiscal means anywhere in the democratic world' (Begg, 2003).
2004	The Future of Transport: a network for 2030	Government set up a transport innovation fund 'to give our delivery partners incentives to develop and deploy coherent, innovative, local and regional transport strategies' (DfT, 2004). Suggested that it was 'most likely to fund packages involving road pricing' and would only consider bids for a WPL in 'exceptional circumstances' (House of Commons, 2006b).

2006	Transport Innovation Fund awarded to Nottingham, Leicester and Derby	Funding was used 'to quantify the cost of congestion in the sub-region ... [and was] complementary and rational in that they [WPL and RUC] both aim to address the congestion threat which faces Nottingham' (NCC, 2007a).
2009	Consultation on Regulations for Workplace Parking Levy schemes	Consultation on the 'regulations to enable enforcement of WPL schemes' (DfT, 2009a). Recommendations were made although a large proportion of the feedback was with regard to the principle of a WPL which had been covered in previous consultation.
2009	The Future of Urban Transport	Funding allocation now focused on achieving triple win outcomes as opposed to just congestion alone. The Urban Challenge Fund allocated for projects that improve 'outcomes for economy, health, and urban environment simultaneously' (DfT, 2009b).
2011	Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen (White Paper)	'Local authorities may put forward schemes [WPL], but they must demonstrate that they have properly and effectively consulted local businesses and addressed any proper concerns raised by local businesses during those consultations' in order to receive Secretary of State approval (DfT, 2011a).
2011	Red Tape Challenge	Although we do not propose to amend the WPL legislation itself, we will require any future schemes to demonstrate that they have properly and effectively consulted local businesses, have addressed any proper concerns raised and secured support from the local business community. This will make sure that future schemes will not impose a burden on business.
2012	Nottingham WPL Charging Begins	Nottingham becomes the first UK authority to introduce a WPL.
2013	Transport Select Committee	It is difficult for us to judge the Workplace Parking Levy (WPL) scheme in Nottingham because a formal evaluation has not yet been carried out. The evaluation of the WPL scheme is of national interest and if the scheme proves to be successful, we recommend that the Government more actively promote WPL to other local authorities.

5.5 Views of Government Transport Civil Servants

This final section provides the views of two senior transport civil servants who worked for all four government departments in which transport was managed during the years discussed in the previous section (Department of Transport; Department of the Environment, Transport and the Regions; Department of Transport, Local Government and the Regions; and Department for Transport). The two respondents will be referred to as CS1 and CS2.

CS2 indicated that by 1991 *'car traffic was about ten times what it had been in 1950 and was set to continue growing. Towns and cities had coped with their share of the growth, and more than coped: they were actually working better, both economically and environmentally. But there was a question as to how far, and how long, existing measures would be adequate to deal with increasing pressure ... parking and traffic management were working but were under even greater strain. Increasingly, thoughts turned to traffic restraint and to the possible use of the price mechanism for that purpose'*.

Whilst RUC in a UK policy context dates back to the publication of the Smeed Report (MoT, 1964), significant developments were made in 1991, when the then Secretary of State for Transport commissioned a feasibility study of congestion charging in London. CS2 outlined *'the study was an important political decision [and] at that point, congestion charging moved from being just an interesting subject for theoretical study, onto the political agenda as something which might well be implemented in the foreseeable future'*.

With respect to private parking, in the 1950's and early 1960's, developers were encouraged and in some instances required to provide off-street parking as there was the view that cars on the road searching for parking was a cause of congestion. This view changed in the mid-1960's as local authorities controlled on-street parking and recognised the influence the availability of parking had on how a person travelled. To this end, in the 1970s the parking requirements changed so developers provided less parking at new sites.

By 1991 however, CS2 indicated that local authorities thought this was not enough and they therefore wanted increased control over existing private non-residential parking. To achieve greater control, two approaches were identified. First, local authorities could rescind the planning permissions for some of the parking spaces they had allocated to developers. This however would require paying compensation

to land owners which local authorities were keen to avoid. Second, if local authorities *'could impose a tax or a levy on PNR parking spaces, they would not have to pay compensation – on the contrary, they would have a source of new income – and they might achieve the reduction they wanted'* (CS2).

Based on this view, the local authority associations published a report in 1994 calling for *'local authorities to be given powers to impose road user charges or levies on private non-residential parking, and to keep the proceeds'* (CS2). Following the publication of this report, numerous meetings followed where it was made clear that *'local authorities were almost exclusively interested in the PNR parking levy, not in RUC [as] their thinking seemed to be that the levy would see them through ten years or so, and the RUC could wait until after that'* (CS2). What's more, this report also lobbied to ensure any revenue from such a scheme should be retained by local authorities themselves. Despite this view, CS1 stated that although they were unsure, the origins of the WPL was most likely to have been identified during the process *'of speaking to academics and other countries which typically occurs in the lead up to the publication of a White Paper'*.

During the period in which these meetings were taking place, the UK ratified the International Framework Convention on Climate Change in 1993 and were preparing for the Kyoto Conference in 1997. Following this conference, the UK government had signed the Kyoto Protocol which meant the UK was committed to reducing greenhouse gas emissions, of which transport played a part. This meant transport policy was now required to not only consider the links between economic growth and transport growth, but also their apparent conflict with the environment.

Despite the publication of *'Transport the Way Forward'* (HMSO, 1996), which expressed *'a presumption in favour of introducing legislation, in due course, to enable congestion charging to be implemented'* (CS2), the intensity into developing policy by the Conservatives further cooled in the lead up to the 1997 general election. Following the election of the Labour Administration, there was now the idea that local authorities should have more powers to control issues associated with congestion as well as with how local transport is funded. To achieve this however local authorities had greater responsibility and were required to develop LTP's every five years. This meant transport planning was more strategic and was the right approach to take as *'it is local people and local elected members who know what the issues are'* (CS1).

In the subsequent *'Transport White Paper – A New deal for Transport'* – local authorities were recommended to have the power to introduce RUC and WPL (DETR, 1998a). At this point it is worth

highlighting that both respondents stated *'congestion charging is a general term covering two types of charge: a tax or levy on parking in congested areas, and a charge for the use of road space to reduce congestion in those areas ... this was because it was all about congestion management'* (CS1).

With respect to the two measures, CS2 indicated Her Majesty's Treasury primarily favoured congestion charging, as it widened the tax base and would place a low rate of tax on a large number of things (motorists) which is politically less contentious than a high rate of tax on a low number of things (workplaces). What's more, whilst the Treasury is traditionally opposed to hypothecation, in this instance it recognised local authorities were not going to introduce a charging scheme without the promise of some share of the proceeds. In the spring of 1998, the Secretary of State for DETR, John Prescott and the Chancellor of the Exchequer, Gordon Brown, had a meeting which led to three agreements with respect to hypothecation. First, local authorities could keep a share of the proceeds from the charging schemes. Second, Mr Prescott managed to ensure local authorities were required to spend the proceeds specifically on transport. Third any pilot schemes would be able to keep all of the proceeds for a given period which was identified to be an unexpected success for the DETR (CS2). Despite this, the definition of pilot studies was an area of confusion. It was later clarified when it was stated *'every scheme started in the first 10 years of the legislation would qualify for 100 per cent retention of proceeds by the local authority concerned for its own first 10 years'* (CS2). This period has now passed and the present position is despite the importance of local authorities receiving some of the proceeds from a charging scheme, each proposal will be assessed on a case by case basis.

The view of DETR with respect to the two charging schemes at the time was that RUC was theoretically the best solution, solely for addressing congestion. However, CS1 argued that RUC was unpopular with some authorities as it was better suited for bigger locations due to the cost of implementation, the technology wasn't available or proven during the early years in which local authorities were exploring the schemes, and that some historic cities did not want the gantries and cameras associated with RUC. In addition to this, CS1 also outlined a WPL was easier to introduce politically as it had less of an impact on local voters as a proportion of the people who pay were likely to commute from another jurisdiction as well as because it was aimed at businesses (which have no vote) as opposed to overtly aiming at motorists. What's more, parking spaces are fixed which make avoiding paying the levy difficult; the number of spaces that exist is easy to understand using business rate information; and it is less expensive to implement compared with RUC as it can be introduced in a relatively small area and has low operational costs. The final benefit with a WPL highlighted by CS1 is that you can make a *'respectable intellectual argument that states you are cutting congestion by persuading people not to*

come in to the centre during peak periods and instead use buses, trams or more sustainable methods which will reduce pollution and provide us with hypothecated revenue to improve local services'.

In addition to this CS2 outlined many of the thoughts central government were having at the time with respect to a WPL when 'A New deal for Transport' was published. CS2 argued the cost of levy for each parking space was envisaged to *'be more or less the going rate for an annual season ticket at publicly-available off-street parking in the area, perhaps £300 or £400 in most cities, and perhaps up to £3000 in central London'*. The Government were unconcerned as to whether the cost was passed on to employees on the basis that if employers shouldered the cost they may reduce the parking supply and if users bore the cost then it *'might tip the balance between driving to work and using public transport'*. What's more, should an employer be avoiding the full charge, the Government recommended a penalty charge of 50% of the annual charge on the basis *'that if the local authority inspected each premises twice a year, and offenders' premises more often, it would pay to be honest'*.

There were also a number of issues that needed to be overcome. First, the Government wanted to avoid a requirement for local authorities to undertake a public inquiry should they want to introduce a charging scheme as it could lead to long delays. For this reason the favoured approach was for local authorities to develop a draft Order, inviting representations of which would be considered before the final Order was made. Linked to this was whether a referendum should be held as well as the question posed by CS2; *'can a charging scheme ever get a "yes" vote at a referendum?'*. In response to this it was stated that *'if a charge scheme is worth introducing, then by definition its benefits must exceed its costs. In the case of a congestion charging scheme I would expect that net gainers will outnumber net losers. So, if we make the simplifying assumption that everyone votes according to personal interest, we should expect a "yes vote". But there are at least two good reasons why this may not happen'*.

The first is the nature of costs and benefits. With regards to losses they will be significant and easily quantifiable as they will primarily fall on two groups of people; motorists who drive into the charged area (who will either pay or not make the journey) and traders who will suffer from a reduction in traffic (shopkeepers, cafe owners). The benefits however are spread more widely. The first group that will benefit are motorists as they will experience smoother traffic flows; however CS2 indicated that outside central London this benefit is unlikely to be worth more than the congestion charge. The second group is everybody that uses the city centre as they will experience a better environment and greater availability of public transport. These benefits however, are more difficult to quantify and are likely to be

small for any individual. Therefore *'those who stand to lose from the charging may be more likely to vote than those who stand to gain, because individually they have more at stake'*.

The second reason is that when politicians promise to impose charges, it is likely that voters will believe them. However, if the same politician promises to improve services, the same voter is likely to be more sceptical, either of the politicians' good faith or of their ability to deliver. Therefore, *'voters may apply a discount factor in their valuation of the benefits, which may reinforce the tendency to differential turnout just mentioned, or may even occasionally tilt the balance from yes to no'* (CS2). What's more, the benefit that motorists gain is dependent on how bad congestion actually is. CS2 indicated that *'Central London has a major and chronic problem of congestion. Other cities have congestion problems which are real enough but, I think, they affect less of the journey, and occur over less of the day. It follows that motorists elsewhere have less to gain than those in London from a measure to reduce congestion, and are consequently more likely to resent having to pay for it'*. These views could also apply to a WPL as businesses can easily quantify the costs of the levy where as it is more difficult to quantify the benefit. What's more, whilst voters may believe a politician when they say that they will charge them to park at work they may apply a discount factor to the proposed improvements. These views were partly why a referendum was not a requirement for authorities interested in a charging scheme. Despite this negativity with respect to holding a Referendum for a charging scheme, *'the experience of London in 2004 shows that in a regular election, an administration which has introduced charges can see off a challenge from an opposition which promises to abolish them'* (CS2). What's more, CS1 also provided the example that if people were opposed to a WPL in Nottingham, they could have voted for a different party that did not have a WPL on their manifesto.

Another issue was the definition of workplace parking. Whilst it was clear employees should pay, there were issues with university students, parking reserved by the employer for staff nearby, people working for the occupier of a premise even if they were not a direct employee as well as small premises/business. For students, it was argued that whilst they could be seen as both 'customers and workers', it was decided students were at a workplace and therefore should be liable to pay the levy. For parking that is reserved for employees, regardless if it is off-site, such as a public car park, the spaces should be liable to the levy as should people who are paid to work at the occupiers premises. For the example of small premises, it was thought sensible to exempt them on the basis that it would save on administration. This is because for the example of London, it was estimated an exemption for premises with less than 10 spaces would mean 60% of employers would avoid the charge but only 15% of spaces would not be taxed. Some authorities however wanted to exempt small businesses rather

than small premises *'on the grounds that small businesses would feel the pain of a levy, while great national corporations like the High Street banks would hardly notice'*. However this argument was rejected on the basis that banks make much of their profit not in High Street branches but in the City of London and the cost would be a significant amount for a local branch. What's more, CS2 argued *'fairness lay in charging the same levy for all workplace parking spaces in the same area, subject to concessions which, if granted, should also apply uniformly through the area, without regard to the size or type of the undertakings which might benefit'*.

Further consideration was also required to ensure there are local parking restrictions in place around places of employment to ensure parking is not displaced. This is because there would be no revenue or reduction in congestion for local authorities if parking was displaced. The final area of contention was the issue of how local authorities would be able to afford to pay for their own WPL bill. This is because local authorities are likely to have large amounts of parking in the area where a charge is introduced and revenue from the WPL could not be recycled to pay their bill as it is hypothecated for local transport. Local authorities therefore had three choices. First they could review their parking allocation in an attempt to reduce the number of spaces to avoid the charge; second they could pass the charge on to staff which was guaranteed to be unpopular and therefore difficult; or third cover the costs from the Council's budget which would be required to *'be small enough not to matter too much as part of the Council's overall finance'*. Whichever approach was taken however, would take time to plan and need to be considered.

Although there was no mention in the 1998 White Paper, CS2 highlighted that the Department believed that there would be 30 or 40 schemes in the first five years. This was on the basis that the number of *'road user charging schemes were going to be in single figures, [and] the other twenty or thirty schemes would be workplace parking schemes'*. The reasons for this was the equipment for RUC was still being developed and that councils would be interested in a WPL as an interim arrangement until the technology was proven for RUC. This was because the Government had the view that whilst a WPL would reduce parking spaces and therefore reduce commuter traffic, the roads would eventually fill up with through traffic which would be unaffected by a WPL. At this point a RUC would be introduced. When questioned with respect to the assumptions of the 20 charging schemes that would be implemented by 2010 in the Transport Ten Year Plan, CS1 gave the following response:

'The Treasury works in a sort of 5 year or 10 year spending plan and they were building up to a new spending plan and knew the bill was going through. I recall the Treasury ringing me up one morning

and asking how many charging schemes will be in place by 2010 and what the revenue would be. I said I had got no idea, we haven't got the legislation, no local authorities have done anything more than throw their hat in the ring, there are no schemes on the ground, I have no idea how much they are going to charge if they do introduce a scheme, I don't know the number of vehicles or number of parking spaces and what their cost will be, and you are asking for a revenue figure for the next ten years and you want it this afternoon. So I said that on the basis that these authorities have expressed an interest, and my gut feeling is that x, y and z and a, b and c are more likely, and this is the sort of figure they are talking about, I did a quick calculation multiplied it by 5 and rang the Treasury back and said X number of schemes. They asked if that was all, and so I asked what figure they would prefer. So that is how the number of schemes that would be introduced by 2010 came about.'

This description indicates how the number of schemes that were 'assumed' to be in place by 2010 was never a realistic target but instead was at best an 'educated guess'. As the assumed number of charging schemes was not met, CS1 indicated some of political difficulties associated with introducing charging schemes. These included no political majority for local authorities to implement a potentially unpopular scheme; a need for individuals in the council to view transport as important; as well as having a positive view with respect to charging schemes; and not wanting to be the 'first' authority to introduce such a scheme.

To overcome these difficulties CS1 highlighted some steps which were taken to encourage local authorities to adopt these measures. The CDP was established in order '*to develop local authorities interest, to provide a self-reinforcing thing that the local authorities weren't in it alone as well as way to share knowledge*' (CS1). CS2 however stated that there were around 25 authorities in the CDP and '*not all were equally interested*'. This is because whilst some authorities were keen, some of the metropolitan boroughs from West Midlands County and Greater Manchester often '*tagged along out of loyalty to their group*' (CS2). Whilst loyal to their group, the multiple borough approach to Metropolitan areas was identified to be a barrier for the introduction of charging schemes. This is because boroughs opposed to the schemes could propose to hold a referendum which as previously highlighted whilst possible, is unlikely to gain public approval. The meetings were held approximately every six weeks and Table 5.7 indicates the interest at the time for some of the CDP authorities.

Table 5.7 – Local Authority interest with respect to introducing a RUC or WPL

Local Authority	Scheme	Details
Edinburgh	RUC	A Referendum was undertaken where people voted for or against the introduction of a charging scheme that would deliver better public transport. The public rejected it and that was that.
Newcastle	Neither	Against the price mechanism as they <i>'believed in access based on need, not on ability to pay'</i> . Had an idea to prevent motorists using city as a shortcut by requiring them to have a permit to enter the city or a permit if you had a parking space which would allow you to enter the city.
Durham	RUC	Introduced a small RUC scheme in 2002 to access a single street in the centre to alleviate moving parking. Seen more as an entry charge than a traditional RUC scheme.
Leeds	RUC	Had an ambition for a tram system which required paying and despite a research project exploring RUC, a scheme has not developed further.
Greater Manchester	RUC	Had an ambition to extend their tram network. However there were ten boroughs with no overarching authority and they liked to proceed with unanimity which was not there. A RUC would not affect all ten boroughs equally and WPL was highlighted as not being suitable for some areas. Held a Referendum for a congestion charge in 2008 that was rejected.
Merseyside	Neither	Did <i>'not want to put any financial obstacles in the way of economic activity'</i> .
Nottingham	WPL	Initially interested to help fund a tram route but identified money for the first stage. However, wanted to extend the tram further which reignited interest.
Leicester	RUC	Ambition for tram which required funding and developed research project to understand the changes in travel behaviour for a hypothetical RUC.
West Midlands County	WPL	Interested in the WPL and not road pricing as Birmingham still saw itself as a "motor city" and did want to place a charge on moving vehicles. All the boroughs wanted to develop a tramway and an attraction of WPL was that not all boroughs were required to introduce a charge. This was important as Solihull were not interested.
Cambridge	WPL	Ambition for a tram, not in the centre but to St Neots, which was an attractive proposition as an alternative to road building. Was popular amongst government as they were the only Conservative local authority in the CDP.
Bristol	RUC	Ambition for a tram which could be funded by a congestion charge.
Reading	WPL	No ambition for a tram but were interested as they had a problem with <i>'more pressures for development than they could readily manage'</i> .
London	RUC	Introduced in 2003 to reduce congestion and raise funds to improve local transport

This table has outlined the initial interest of local authorities from the CDP with respect to the charging schemes. It outlines the considerable interest during the early years of the CDP which were often linked to a desire to introduce a tram; and thus revenue.

Despite the negative view Government received with respect to enabling local authorities to set up charging schemes, CS1 argued that apart from setting up the CDP, there was not much else Government could do. This was because the legislation had been specifically designed to ensure local authorities make decisions that are right for their localities. For this reason CS1 stated *'there was not a lot you could do as a civil servant because all you can do is try and give them a bit of back bone and try and appeal to their greed by saying you know you can get so many million pounds'*.

This appeal to their greed was on the basis that prior to the Transport Act 2000 local authorities were always demanding more money from central government to make transport improvements. However, following the increased powers, local authorities were now able to raise their own money which CS1 admitted was sometimes used as a bribe. This is because it was stated *'that the government would say we will give you 75% [of funding for a transport project] and you [local authorities] raise the rest yourself. They would argue they could not raise the money themselves and we would highlight the revenue potential of a RUC or WPL'*.

Although the DfT had a desire for schemes to be introduced, CS2 argued the Government was neutral if a local authority wanted to introduce a congestion charging scheme or not, and the decision to do so would not affect the Government's decision on grants. However, CS2 reiterated CS1's stance in the fact that the grants would not be sufficient alone to finance a tram scheme and if this was the direction a local authority intended to go, a stick in the form of a charging scheme was required. With respect to a WPL however, the government specifically wanted less private parking to discourage commuting by car. To this end, whilst government encouraged local authorities to adopt a WPL they also made clear that it would be sufficient to encourage employers to introduce travel plans to reduce parking so long as satisfactory progress could be made with this approach. At this point CS2 highlighted differences between central and local government in the field of transport as it was stated:

'Central Government sets the framework, and may set objectives, and it allocates resources and gives advice which is always well meant, and which may actually be useful. Sometimes, local government may do the same. Indeed, with workplace parking, we thought that local authorities might impose a levy and then rely on market forces to reduce the number of parking places. But, more often local

government will get out and actually make thing happen. So, in the case of workplace parking, it will talk to local employers and try to get them to sign up to travel plans which reduce travel to work by car.'

On this basis it could be argued central government are keener for local authorities to adopt charging schemes than the local authorities themselves. CS2 argued that this is because Government are 'further away from the votes of local people on local issues' than local authorities. In addition, CS2 described further differences between how local and central government viewed congestion charging and the same could be applied to a WPL:

'I and my colleagues tended to think that road pricing was rather like a thermostat, which could be set to the desired level of traffic, and would turn the charges up or down as appropriate. We saw the revenue from it as welcome but incidental, and we tended to assume that local authorities did the same. Since retiring I have sometimes wondered if local authorities saw things exactly the other way round: road pricing as a money tap to be turned up or down, and reduced congestion as a useful by-product from turning it up. On further reflection, I think this would be unfair. I think that the local authority approach was essentially the same as ours ... they saw reduced congestion as the primary objective and increased income as secondary. But, what I and my colleagues did not fully allow for, they attached more importance to the increased income than we did'.

In addition to this view, it was also stated 'local authorities wanted powers to introduce road pricing [and WPL] to reduce congestion. But, if they had thought that they could get all the money they wanted for their transport initiatives by other means, road pricing would have been well down their list of priorities, perhaps a last resort' [CS2]. This therefore outlines the differences in the views when policies are designed at one level of governance but implemented at another. This misinterpretation with respect to how schemes are viewed occurred despite the constant communication between central and local government through consultations and the CDP.

Despite the initial interest and support, today there are only three schemes that have been introduced. Durham introduced a very small RUC scheme which charged a fee to enter a single street. CS2 argued that this scheme gained public acceptance 'because unlike a mainstream road charging scheme, it does not feel very much like interference with all our historic rights to free use of the Queen's Highway'. London is the only location with a full scale traditional RUC scheme and CS2 argued that once London had decided to introduce a RUC scheme in 2003, it gave other authorities 'an excuse for not taking difficult decisions' and to see how the London scheme went first.

With respect to a WPL, only Nottingham has implemented such a scheme and CS1 suggested this is because they have had a *'solid labour majority for the last 30 years'*. What's more, CS1 argued that for the Nottingham WPL, NCC had *'good far sighted councillors and good officers'*, they were proactive and innovative with respect to transport policies, and had developed a good transport network which meant they had attained a degree of trust from their voter base and were therefore more likely to gain public support. Furthermore with respect to the Nottingham scheme, CS1 stated that *'one of the sales points they (NCC) would use with their electorate is to say look if you have the pain of this (the WPL), we will be like a Strasbourg or a Munich, a great European city and we will have a cafe culture with a shiny new tram along the river'*. The purpose of central government therefore, was to emphasise these potential benefits to 'distract' local authorities from the negativity surrounding the introduction of a charging scheme and give local authorities *'backbone'* (CS1).

The political difficulties were also emphasised by the fact that *'politically it is always easier to be negative than positive, so anybody can come up with a dozen reasons why you can't do anything, but to actually stand up and say here are three good reasons it is a lot more difficult because it is almost a leap of faith'* (CS1). However, CS1 suggested that the issues are sometimes over emphasised as although a business may threaten to leave following the introduction of such a scheme, this has not materialised and is often a way for people opposed to a scheme to lobby to make effect. This was cited in relation to the threat of businesses moving out of Nottingham.

In summary therefore, CS2 stated they were *'surprised that there has not been more interest in the WPL, since it offers a reasonably straightforward way of reducing private non-residential parking which, ten or twelve years ago, seemed to be the essential next step in solving local authorities' traffic problems'*. However, CS1 argued that nobody wanted to be the first to introduce the charging schemes, but following the implementation of the WPL in Nottingham, there is the view that other authorities will be interested so long as the revenue remains ring fenced. This is on the basis that Nottingham has successfully introduced a WPL so other authorities will no longer be the first; the threat of businesses leaving has not materialised as well as the fact *'Nottingham are making £10 million a year based on administration that is not costing them much'*.

Despite this, CS2 stated that if the target was really to reduce PNR parking and not raise revenue, then the scheme could have been better designed. The new scheme would review all the workplace parking spaces in its area, and *'consider how many of them would gain approval if the premises which they serve were to be given planning permission today. The authority would then apply the levy to the*

excess spaces, that is, those which would not get planning permission today’. This would therefore mean that the revenue in principle is temporary and that if the levy works as intended, employers will close down excess parking and the charges would be self-extinguishing meaning the revenue would not be relied upon in the long term.

5.6 Chapter Summary

First a documentary analysis described the national view and development of the WPL. This has been supplemented by two Interviews that have provided additional detail and given a more personal account with regards to charging schemes. It has highlighted how Government favoured a RUC on the basis it broadened the tax base and placed a low rate of tax on a number of things and would address congestion. Despite this, local authorities placed a much greater emphasis on the revenue from such schemes particularly due to the interest of installing trams which could suggest local authorities did not view the issues associated with congestion as significantly as Government. Indeed, in the early years it was identified that NCC were pursuing a charging scheme but when the revenue was identified for the first tram line, the proposals were dropped. It has also outlined that WPL were more popular politically with local authorities as commuters who may be liable may not be able to vote as well as because the cost is less overtly aimed at motorists and instead at businesses who cannot vote.

Government also indicated how they were limited in the support they could provide local authorities as it was local decisions, but did indicate they attempted to appeal to a local authority's greed by sometimes bribing them with financial incentives as well as selling the benefits of what the introduction of a charging scheme could mean. An example of this was to describe to NCC how Nottingham could become a Munich or Strasbourg if they had the revenue to implement and expand their tram system. Finally, it described initial implementation and design considerations such as the difficulties of referendums for charging schemes. The next chapter will present the WPL specifically in Nottingham.

Chapter Six: Background to the Workplace Parking Levy in Nottingham

6.1 Introduction

This chapter will present the findings of a documentary analysis undertaken in order to understand the introduction of the first WPL in the UK context; this is in the City of Nottingham. First, a background to Nottingham will be provided in order to understand the context of the city and will be followed by a description of the issues in Nottingham which meant NCC sought a policy solution. The options which Nottingham investigated will be highlighted alongside the benefits of each measure and subsequently the reason as to why the WPL was chosen. An outline of the legislative framework of which NCC had to follow will be discussed, before a review of the public consultation and examination undertaken to manage any concerns. The design and operation of the scheme will then be presented and the final section will provide a conclusion to the chapter, summarising the key points made.

6.2 Background to Nottingham

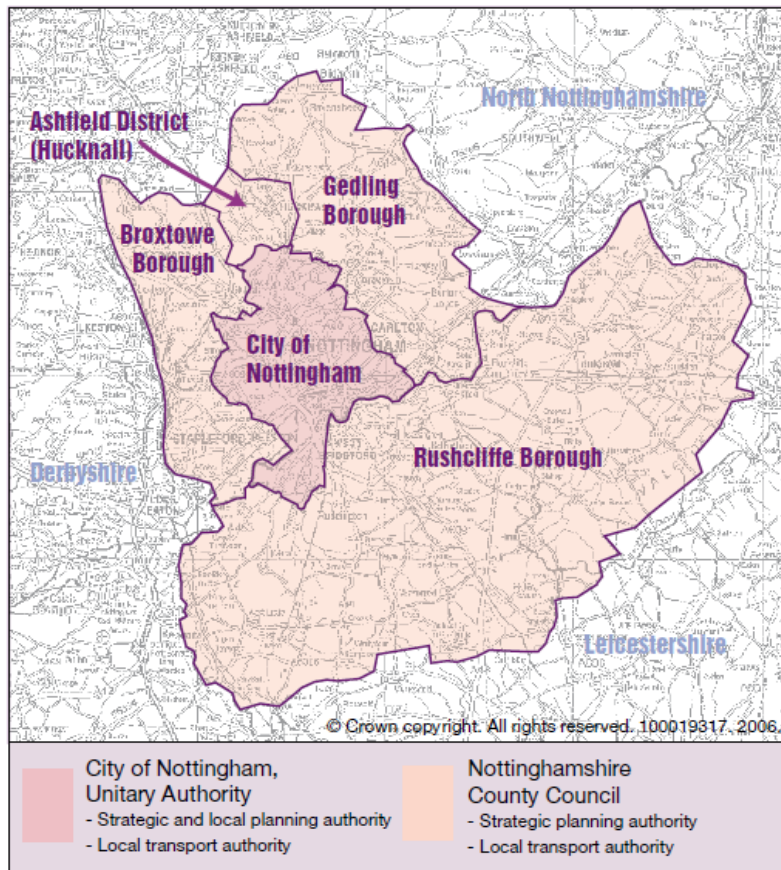
Nottingham is the largest city in the East Midlands region of the UK and 'is one of eight core cities recognised by the Government as the most important drivers of the national economy outside of London' (NCC 2008a, p8). This is supported by the fact that it is home to major international and UK businesses including Alliance Boots, Capital One, E.ON, Experian, Siemens and Speedo (Invest in Nottingham, 2012). In addition to business, two major public sector offices are based in Nottingham; HM Revenue and Customs and the UK Driving Standards Agency (My Jobs, 2012). Nottingham has also been recognised as a top five UK shopping centre for four successive years 'and attracts an annual spend of nearly £1.3 billion. Overall, the Greater Nottingham economy is worth more than £10.7 billion per annum and more than 300,000 people work in the City' (NCC, 2008a, p8)

Nottingham 'is located approximately 110 miles north of London, and has excellent transport trunk route links to the rest of the UK ... [; it is also] located close to main railway corridors and two major regional airports' (Frost and Ison, 2009, p3). Local transport is well served as 'Greater Nottingham's record on

transport issues is one of the best in the UK. In addition to being named "Transport Authority of the year" in 2002 – 2003, the City has been awarded 'Centres of Excellence' status for Integrated Transport (2001) and Local Transport Delivery (2005)' (NCC, 2008a, p8). More recently Nottingham was awarded the Transport City of the Year and the Transport Local Authority of the Year in 2012 at the National Transport Awards which are awarded for high performance for delivering sustainable transport solutions for passengers (The Big Wheel, 2012). The public transport network carries 76 million passengers a year and congestion levels have been held steady for the past 6 years (The Big Wheel, 2012) and since '2003 the number of passengers has increased 13% and unlike most other English cities Nottingham has experienced a renaissance in bus use reflecting the high standards of quality' (The Big Wheel, 2012).

The Nottingham conurbation is rare in the fact the administrative boundary for the City Council does not encompass the entire conurbation (Frost and Ison, 2009). This is because the governing structure of Greater Nottingham is split between five councils (Figure 6.1). Although there are four District and Borough councils enclosing the City of Nottingham, these suburban districts are a part of and share responsibility of services with Nottinghamshire County Council whilst NCC, a unitary local authority governs the City. Due to the number of councils in operation as well as the different electoral cycles in which they operate, it requires 'political and legislative co-operation between councils which can present significant political difficulty' (Frost and Ison, 2009, p4).

Figure 6.1 – Administrative area of Greater Nottingham



Source – NCC, 2006 p.8

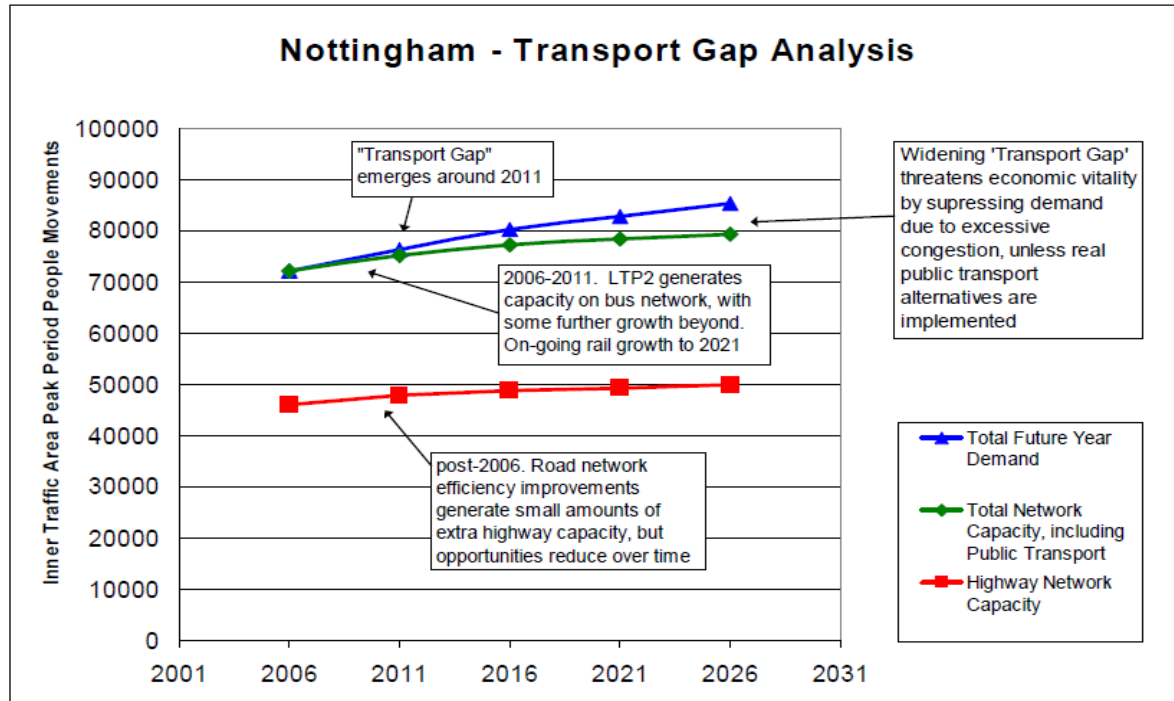
The population of Greater Nottingham is 675,600 (306,700 in the City of Nottingham) and the population for the Nottingham-Travel-To-Work Area is estimated at 805,800 (NCC, 2012e). It has also been identified that 55% of the employees with jobs in the City of Nottingham, reside outside the City boundary in the County area (NCC, 2006) meaning that the majority of commuters affected by the levy would reside from outside the City boundary (Frost and Ison, 2009).

6.3 The 'Problem' in Nottingham

This section will present the reasons identified in the documentary analysis as to why NCC explored the possibility of introducing a WPL in Nottingham. From the documents available, a transport problem was identified due to increasing levels of car use. For this reason, Deas (2007, p3) identified that 'if nothing is done to address congestion there is a significant risk that economic efficiency will be compromised, future investment may be deterred and the environment unacceptably degraded'. What's more, it was also identified that with an expanding economy significant investment was required to expand the public

transport network because of a gap that would appear in future years between the demand placed on the network and the supply provided (Frost and Ison, 2009). This gap is illustrated in Figure 6.2.

Figure 6.2 – Future Transport Gap in Nottingham



Source – Deas, 2007, p.26

Figure 6.2 suggests that without any improvements to local transport, the demand on the local transport network was expected to exceed the supply in 2011. Moreover, this gap would increase in subsequent years leading to greater issues and higher costs unless measures could be introduced to manage congestion and/or improve public transport (Deas, 2007). To this end, congestion and public transport improvements will be addressed in turn.

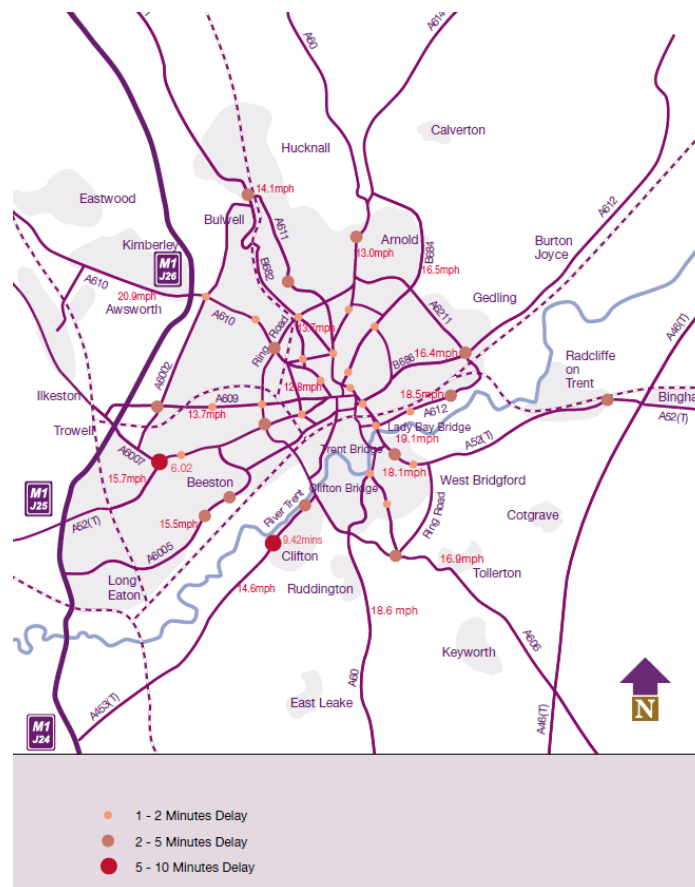
6.3.1 Traffic Congestion in Nottingham

'Like most large cities Nottingham gets congested at peak times' which places a large cost on the economy and creates frustration and cost for both motorists and business 'through late deliveries, late staff and missed appointments' (Brice, 2010). In 2007, Atkins carried out a study for the East Midlands region (EMDA, 2007, p.iv) and found that from 'the available data, it is estimated that the total direct costs of congestion are around £825 million per annum, which comprise around £430 million incurred by business users and £395 million incurred by other users. In addition, it is estimated that the wider economic impacts of congestion (including competition, agglomeration and labour market effects) total

around £110 million per year. In total, it is estimated that congestion costs the East Midlands economy around £935 million per annum'. Specifically for Nottingham, the direct economic cost of congestion is around £160 million half of which falls on business and therefore any improvements to congestion is assumed to benefit business (NCC, 2008b).

At the time, car travel to the city was the most popular form of transport as 61% of people arriving in the city did so by car (NCC, 2006). This was highlighted to cause delays on key routes and junctions particularly to the west of the city where the main trunk road is located. These constraints are highlighted in Figure 6.3 by the larger red dots which represent greater delays caused by congestion.

Figure 6.3 – Map of constraints on the Nottingham road network



Source – NCC, 2006, p.99

In addition to these problems, NCC (2008b, p1) identified that 'forecasts tell us that car use is set to increase and congestion levels will get much worse ... [and therefore] we've got to reduce our reliance on the car before the traffic jams literally put the brakes on our competitiveness – it's not good for businesses, not good for residents, not good for anybody, even those driving the cars'. To this end, due

to the costs associated with congestion caused by the delays on the road network and its forecast to get worse, NCC had a desire to reduce or at least limit the growth of car use. This was because Frost and Ison (2009, p6) identified that an extensive expansion of the road network to accommodate the increased demand is not a realistic option in Nottingham 'due to the piecemeal development over time of the road network and concurrent development along these route little land and /or scope for potential expansion of the road network exists, without major demolition or significant environmental impact'. There was therefore a desire to restrict car use as well as to invest in public transport.

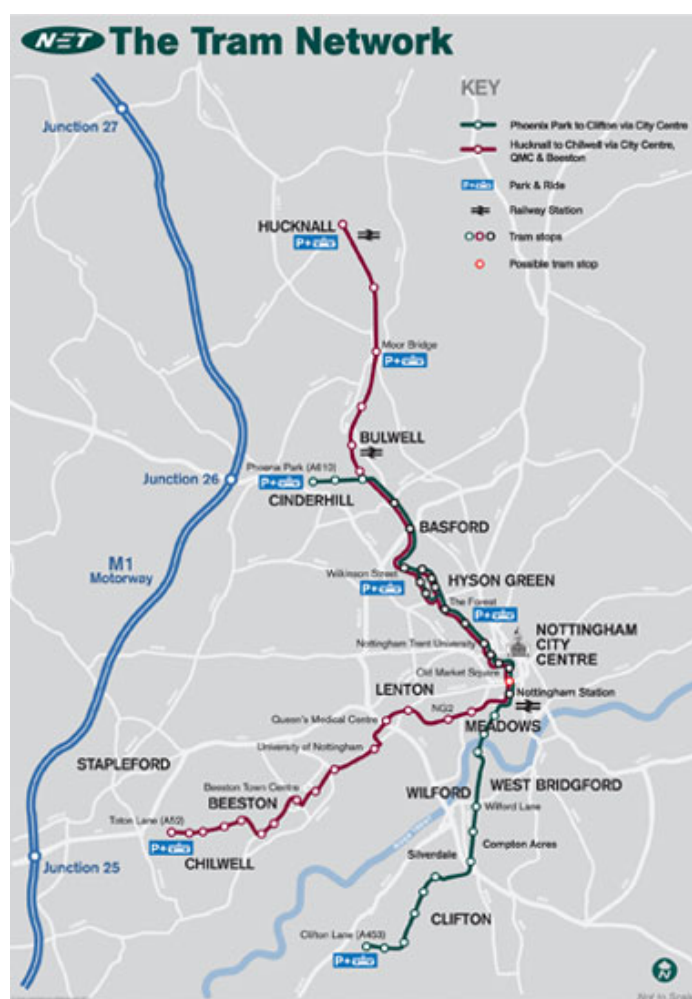
6.3.2 Funding Public Transport in Nottingham

Due to the issues of congestion in Nottingham, NCC was keen to improve and maintain existing public transport. This was because although Nottingham had many awards for transport in the city due to the success of the local bus network as well as the development of a tram line to the north of the city, there was a desire to provide further improvements to increase usage. For this reason, NCC identified three areas of public transport for which funding would be necessary; the bus network, an upgrade to the railway station and an extension to Nottingham's tram network, commonly known as Nottingham Express Transit (NET).

Nottingham Express Transit

In 2004, Nottingham opened NET Line One to the northwest of the city. Since its opening, it has been regarded as a success as the line carries over 10m passengers per annum and has led to a 20% increase in peak public transport usage where the line operates (NCC, 2008a). NET has benefited a variety of people as it has 'improved accessibility to a number of key employment, education, retail and leisure sites and has increased mobility for many users, especially those with some form of mobility impairment' (NCC, 2008a, p8). Based on this success, NCC were keen to extend the tram network under NET Phase Two. Figure 6.4 illustrates the existing route to the north of the city as well as the two proposed routes to the south and west of the city.

Figure 6.4 – Map of existing and proposed NET routes



Source – Tramlink Nottingham (2012)

This extension would mean the three tram lines would extend out to the three motorway junctions that serve Nottingham. In addition, at the end of each of the tram lines, there would be park-and-ride facilities with 2,400 parking spaces that would be used to reduce the number of vehicles entering central areas by encouraging motorists to use the tram into the centre for the final part of their journey (NCC, 2011). This is important as the proposed tram routes extend out to the areas where congestion causes the longest delays (Figure 6.3) (NCC, 2011).

Moreover, NET Phase Two 'will provide access to over 1800 workplaces in the area to which about 55,000 employees commute. The development of such projects will be a catalyst for regeneration in the region providing years of construction work that would impact on local employment and local spending. It is estimated that by 2021, 11,800 new jobs will have been created as a result of NET Phase Two alone' (NCC, 2009, p2).

To realise the extension to the tram network however, revenue would be required. Councillor Jane Urquhart (NCC's Portfolio holder for Transport) highlighted the importance of raising such revenue as it was argued that 'not to build on the success of our existing tram lines (NET Line One) and invest in other key projects would be incredibly short-sighted' (NCC, 2009, p2).

NET Phase Two was expected to cost £400 million. Three quarters of this was agreed to be paid by central government 'under a Private Finance Initiative ("PFI") funding arrangement' ... [which meant] 25% of the cost must be met locally by Nottingham City Council and Nottinghamshire County Council. The current financial model for NET Phase Two requires an annual local contribution by Nottingham City Council of £11.2m per annum' (NCC, 2008a, p79). Therefore a source of local revenue was required.

The Bus Network

NCC was also keen to maintain and improve the 'Link' bus network. Introduced and funded by the City Council since 2004, these buses are designed to 'serve areas not covered by the commercial network and in particular to improve accessibility to out-of-town employment sites, key education facilities and isolated residential areas' (NCC, 2008a, p8). The 'Link' services have been regarded as a success as they carry over 3 million passengers per annum but were however dependent 'on fragile funding' which meant a greater certainty of long term funding was required (NCC, 2008a, p8). Therefore whilst NCC was able to subsidise the 'Link' network at the time, it was identified that 'in the medium to longer term these sources [of revenue] will not be available' (NCC, 2008a, p14).

The Hub Railway Project

NCC also highlighted a desire to upgrade Nottingham railway station. This was because of a desire to transform 'the existing station into a 21st century facility to provide a 'front door' to the city with enhanced passenger facilities ... [which would] be a catalyst for the wider regeneration of the surrounding Southside Regeneration area providing improved public realm, increased retail outlets and generating new jobs' (NCC, 2008a, p9). The vision for the upgraded station meant it would also become a transport 'Hub' improving connectivity between rail, tram, bus, taxi, car parking and pedestrians.

6.3.3 Summary

In summary therefore, NCC required a measure or measures which would reduce car use (or the growth of) and raise revenue to fund key public transport improvements. Moreover, the tram extension

was estimated to require £11.2 million per annum alone (NCC, 2008a) and therefore a substantial new revenue stream was required. The reasons change was identified to be necessary was to ensure that the demand on the transport network did not exceed the transport supply; something anticipated to occur in 2011 (Figure 2). The next section will focus on the different approaches NCC explored in order to address these issues.

6.4 Policy Options Considered

In order to reduce congestion and raise the revenue necessary for the transport improvements, NCC assessed the adoption of twelve alternative schemes to the WPL. The importance of securing the revenue for NET Phase Two quickly was highlighted on the basis that if it wasn't, there would be 'a very real risk of (government) funds being allocated elsewhere' and will also 'impact on the project's affordability and defer the delivery of the benefits that the tram extension will bring' (Horne, 2007, p6). The options that were considered as well as the reasons for being rejected are highlighted in Table 6.1.

Table 6.1 – Policy options considered by NCC to address the issues in Nottingham

Option	Reasons for Rejection
Road User Charging (RUC)	<ol style="list-style-type: none"> 1. Much greater up-front investment required (with associated financial risk), has higher operating costs and poorer revenue collection efficiency than a WPL 2. Achieving an adequate level of public acceptance would require more work, delaying introduction 3. Implementation would require a significantly longer time frame than a WPL and therefore unsuitable due to the need for early generation of revenue for NET Phase Two 4. Higher technological risk than a WPL 5. A stronger demand management measure (in terms of direct traffic and congestion reduction impact) and therefore more appropriate where weaker demand management interventions and other transport improvements have not adequately addressed congestion problem; therefore a WPL tried first 6. Targets shoppers and tourists as well as commuters which could have a negative impact given the current economic climate. In addition it is equitable to charge commuters as they are the major contributor to congestion and the transport investment will bring significant benefits to business
Supplementary business rates	<ol style="list-style-type: none"> 1. Would target businesses irrespective of their impact on congestion 2. Would be unable to generate the scale of revenue required for planned public transport improvements 3. Level of certainty over the timing and content of any legislation is not sufficient for securing the go-ahead for NET Phase Two
Business improvement districts (BIDs)	<ol style="list-style-type: none"> 1. Designed to operate over a relatively small geographical area – smaller than a local authority 2. Each BID is only operational for a maximum of five years which creates uncertainty for longer-term investments 3. BIDs have modest financial ambitions (maximum single BID £380,000 and median £60,000) 4. Administered through a BID company rather than a local authority

Local authority business growth initiative	1. Whilst it could provide for funding for transport improvements the council believes that it cannot generate revenue on a scale sufficient to make it a viable alternative to the WPL scheme
Core cities business rate retention	1. Whilst a proposal can be made to retain 10% of business rates which would generate approximately £11 million per annum (sufficient for transport improvements) central government have not expressed a formal view at this stage 2. The proposal is not on the legislative agenda and so this source of funding does not currently represent a realistic alternative to the WPL scheme
Sale of land or other assets	1. Sale of council land or assets cannot be used directly to meet revenue expenditure and therefore used to meet the 25% local contribution to NET Phase Two 2. Money raised from sale of assets can be invested to generate interest which can then be used for the 25% local contribution however approximately £180 million worth of assets would need to be sold to achieve the money required for transport improvements 3. The Council's property portfolio is held for investment purposes and sale of assets on this scale would have an adverse impact on the councils budget for other essential services 4. Significant demands from other council services that will compete for the use of asset sales
Prudential borrowing	1. Cannot be used for the local contribution of money towards NET Phase Two 2. The loan would need to be repaid and therefore a funding source would still be required
Increased council tax	1. Any potential increase in council tax would be disproportionately high and the benefit received disproportionately low for City residents as the transport benefits will spread much further than the City boundary 2. A 12% council tax increase would be required and increases are capped at 5% 3. Half of the commuters to Nottingham reside outside the boundary and it is projected 60% of the users of NET Phase Two will travel from outside the boundary making it unfair for City residents to burden the cost
European grants	1. It was suggested that only a relatively small amount of funding (<£1million) would be available for transport projects and therefore not a realistic funding source
Local Developer Contributions	1. Whilst increases can be made in the value of land where planning gain takes place, these contributions would not guarantee sufficient funding to make a significant contribution to local investment requirements for public transport infrastructure
Local lottery	1. High running costs and relatively low numbers of people within Nottingham to regularly purchase tickets to sustain the necessary income makes a lottery not viable 2. Current examples of lotteries take years to build momentum and therefore very high investment in marketing and advertising would be required and therefore could take a number of years to become profitable, something not viable for NET Phase Two funding requirements 3. Competition against The National Lottery has effectively put an end to local authority lotteries
Combination of the above	1. A lack of uncertainty or limitations in the level of funding available for the above measures mean that they can only realistically be expected to contribute to some of the costs and not act as a substitute for the revenue that can be generated by a WPL 2. None of the alternative sources of funding (except RUC) will have a direct effect on congestion like the WPL

Source: Adapted from NCC, 2008a, pp76-85

Table 6.1 illustrates the variety of measures NCC explored in order to identify the revenue necessary to fund the transport improvements. However, although many of the options could raise a proportion of the finance, they were primarily deemed unsuitable because of the significant amount of revenue that was required and the inability of certain measures to raise the target amount in the time frame necessary for NET Phase Two. In addition, RUC was the only measure to impact congestion but was rejected for a

number of reasons. This was because of the longer time frame required for implementation and therefore the need to delay the implementation of the tram; the increased up-front investment required; and the potential negative impact on shoppers and tourists, an impact that would not occur with a WPL.

When NCC compared the expected benefits of introducing a WPL with the issues the City were experiencing, they found the WPL performed well against the following success criteria (NCC, 2008a, pp27-28):

- Contribution to a package of measures aimed at managing congestion;
- Flexibility in the treatment of different circumstances;
- Minimise technological risks;
- Minimise road building and large scale traffic management measures;
- Financially efficient;
- Meets NET Phase Two timescales;
- Fits with other corporate priorities; and
- General acceptability'

In addition, a 'WPL will also further encourage the uptake of travel plans and responsible parking management policies; encourage employers to give stronger consideration to the development potential/costs of land used as parking in the city; and represent a financially efficient, high value for money proposal, with relatively low development costs and shorter implementation timescales than alternative charging mechanisms' (NCC, 2011, p48). What's more, the low cost and shorter timescale associated with its introduction meant the WPL performed favourably compared with the success criteria set out.

To this end, it was stated that a 'WPL and the benefits it will make possible will help to control the problems associated with traffic congestion, while promoting and encouraging the use of more sustainable, environmentally friendly forms of transport' (NCC, 2012b) through using the revenue to develop local transport improvements. The WPL package was therefore expected to deliver the following benefits by 2021 (NCC, 2007a):

- 1 20% growth in public transport trips to Nottingham city centre
- 2 Projected traffic growth in car trips to the city centre reduced from 15% to 8%

- 3 45% increase in park and ride usage
- 4 A reduction of 2.8 million car journeys a year from Nottingham's roads

At this point, it is worth highlighting that the documents used so far, have described the Nottingham WPL between 2005 and 2008 based on the documentation available. However, in Chapter 5 it was highlighted that the WPL had long been on the agenda in Nottingham prior to this date as NCC had shown significant interest in developing a charging scheme between 2000 and 2002 when the CDP was established. During this period, it has been identified that NCC did undertake some analysis into charging schemes however the detail is limited. For example it has been identified that NCC carried out a feasibility study in 2002 into the benefits of a RUC as opposed to a WPL. This study found that although a RUC would be more effective at reducing congestion and raising revenue, the 'costs would be far greater (an estimated £70 million, compared to £8.6 million for the WPL)' (House of Commons, 2003). In addition to this, it was also found that NCC decided to seriously consider a WPL as early as September 2002. This is because a report stated that NCC decided to 'develop its workplace parking levy policy for the short to medium term [in 2002], while monitoring the implementation of road user charging schemes' (House of Commons, 2003). Despite this information, there is little other detail available during these early years. To this end, this chapter primarily focuses on the WPL development from 2005 onwards. The next section will address the steps NCC undertook following the decision to progress with a WPL.

6.5 Introducing the Workplace Parking Levy

Before the WPL could be introduced there were a number of considerations required. First, the legal requirements Nottingham were required to consider will be presented and will be followed by a description of the consultation and public examination. The issues, examiners recommendations and the Councils response to these issues will then be covered. The WPL order will then be described before a summary, including a timeline, to conclude the section.

6.5.1 Legislative Requirements

In the Transport Act 2000, it was stated that a WPL would cover the whole or part of a local authority's area and would be introduced to reduce congestion and provide revenue to fund transport improvements. Moreover, authorities interested in introducing a WPL would be required to develop an Order which would act as the legal instrument for introducing such a scheme (NCC, 2008a). Following

the submission of this Order, the Secretary of State for Transport would then review the proposal and would accept or reject the scheme. Table 6.2 provides an indication of the information that is required in the Order.

Table 6.2 – Information required in the Order

Considerations Required	
1	The area affected by the licensing scheme
2	The days and hours the licence is required
3	The cost for each parking space
4	The length the scheme will be in effect (if it is not indefinite)
	If the charge varies for
	a. Different days
	b. Different times of days
5	c. Different parts of the licensing area
	d. Different classes of motor vehicles
	e. Different number of licensed units
6	Who is liable for obtaining a licence
7	How to apply for a licence
8	How a license is issued, granted and how it can be revoked if necessary
9	Type of parking places that are liable
10	Guidelines for exemptions and discounts
11	The charge for the licence
12	The charge for reduced rate spaces (if applicable)
13	The maximum charge that can be imposed
14	Penalty charges
15	Enforcement procedures
16	Guidelines for offences, penalties, disputes and appeals

Source – DfT (2000) and NCC (2008a)

In addition to these 16 categories, there is also a 'requirement for schemes to include general and detailed statements for the application of any net proceeds generated' (NCC, 2008a, p27). This revenue should be used to facilitate the objectives of the Local Transport Plan and therefore must detail a plan of the expected revenue and expenditure to demonstrate the proposals are achievable.

Following the understanding of the legal aspects, NCC proceeded to develop the details that would be required for the Order. NCC (2008a, p28) outlined that 'the scheme development was borne out of

feasibility work and studies, as well as discussions with the Greater Nottingham Transport Partnership. Similar overseas projects (Vancouver (Canada), Perth and Sydney (Australia)) were investigated so that lessons could be learnt'. The information generated from these feasibility studies was used to develop a draft WPL business case which 'underwent a public consultation process including a public examination during the summer and autumn of 2007' (NCC, 2008a, p28). It is worth highlighting that it was not a requirement for NCC to undertake a consultation (Rolstone, 2009).

6.5.2 Consultation and Public Examination

In July 2007, NCC undertook a 12 week consultation in order to understand the views of the population in Greater Nottingham with respect to a WPL. Prior to the event, NCC made information available with regards to the background to the scheme; 'how the scheme would work; impact on employers, employees and residents; a draft business case and frequently asked questions' (NCC, 2007b, p2). This information was available through a dedicated website, telephone hotline as well as the distribution of leaflets for employers, residents and other key stakeholders (NCC, 2007b). Nearly 10,000 leaflets were distributed to employers in NCCs administrative area and over 100,000 were sent to NCC residents. The other stakeholders were both local and national bodies including neighbouring local authorities; core cities; emergency services; business and transport organisations; public transport operators and user organisations; local government organisations; development and utility agencies; education and healthcare bodies; environmental groups; trade unions; disability, faith, charity, community and minority groups (NCC, 2007b).

NCC also advertised and communicated information through media to ensure a larger audience were informed in order to obtain wider representations. This included local posters around the city as well as local and national radio, newspapers and TV. NCC was keen to gather the views of 'residents, employers, other key stakeholders, those that regularly enter the area, those that maybe affected by the scheme and public transport users' (NCC, 2007b, p4). Representations were received and accepted via letter, email or the website and were recorded using 'a web based consultation response management system' (NCC, 2007b, p7). There were a total of 2,485 responses from business (101), NCC residents (959), non-NCC residents (1,237), other organisations (57) and unknown (131). The general views were that 43% of the respondents supported the WPL, 55% objected to the WPL scheme and 2% were neutral (NCC, 2007c).

Further analysis was then undertaken in order to understand the main issues. To do this, the chief examiner identified the areas of greatest concerns and grouped them into 5 topic areas which would provide the structure of the public examination; these were (NCC, 2007b, p11):

1. 'Traffic impacts of the WPL scheme
2. Economic impacts of the WPL scheme
3. Alternatives to the WPL scheme
4. Scope of the WPL scheme
5. Operational issues of the WPL scheme'

The public examination lasted five days and included key council members as well as stakeholders interested in attending the examination session. 'The Public Examination was intended to be a structured debate rather than being an adversarial hearing with parties set against each other. The "round table" discussion was conducted in a relatively informal manner designed to create the right atmosphere for discussion' (NCC, 2007b, p10).

The results of the consultation and the responses from the public examination were made available via the council website. The chief examiner also produced a report with recommendations on the WPL including any weaknesses any potential alternatives that could be used to achieve the stated objectives. The WPL scheme was then re-evaluated by NCC under the findings as prepared by the Chair where they then published their own report in response to the Examiners findings and recommendations (NCC, 2007b). These issues will be discussed along with the council's responses in the next section. At this point, it is worth highlighting that NCC estimated the total cost of developing the scheme as well as the consultation up until March 2008 at £990,000 (NCC, 2007d).

6.5.3 The Council's responses to the Examiner's Recommendations

In response, NCC published a report (NCC, 2007e) to make clear the council's view with respect to the major issues, as decided by the examiner. The biggest issues were developing travel plans and business support; if it was fair to charge businesses; business impact; displaced parking; public transport improvements; road user charging as an alternative; equity; exemptions based on number of spaces; and companies with multiple sites in the city. In addition, although the concern of introducing a WPL during a period of economic downturn did not appear in the public examination due to the timing, it was recognised as an issue in NCCs response and will therefore also be addressed in this section.

Travel Plans and Business Support

The first recommendation was to ensure that adequate provision was in place to support employers with developing travel plans as well as to provide advice on parking management schemes to help businesses assess charging employees with different needs and resources. To this end, it was suggested that NCC should produce a detailed plan of the support that will be provided, including costs that would require funding via the proceeds of the WPL.

NCC responded by stating that although the council had already allocated £100,000 per annum for the first three years to support business, it was accepted that further help could be provided and therefore agreed to expand their support further (NCC, 2007e). NCC developed a detailed programme of the cost for delivering the support both pre- and post-implementation and working with its partners ensured that support would be provided to ensure employers could develop travel plans which would bring 'economic, social and environmental benefits both for the employers and employees' (NCC, 2007e, p15).

This support would be delivered via 'The Big Wheel Business Club'. This was a webpage which provides 'advice, support and useful contacts for all organisations interested in developing their own travel plan to reduce car park overheads and maintenance costs, improve their corporate image, reduce their carbon footprint or just make life easier and more attractive for employees and visitors' (NCC, 2008a, p54). Additional NCC support was provided through the TransACT grant scheme which provided funds for businesses interested in developing travel plans to help implement a car park management strategy as well as help with staff travel surveys and analysis (NCC, 2008a).

Fair to charge businesses

The second concern raised was if it was fair to charge employers to fund local public transport improvements. NCC argued that as business incur around half of the cost of congestion coupled with the fact commuters account for around 70% of peak period congestion, 'it is only fair that employers accept their responsibility [for congestion] and proactively manage the traffic going to and from their employment sites and contribute to investment in public transport alternatives to the car' (NCC, 2012b). In addition, NCC (2012b) also stated that businesses 'recognise that congestion costs money and that more tramlines and even better buses are important for tackling congestion' and therefore businesses have demanded a 'a public transport system fit for the 21st century and with the Workplace Parking Levy that's exactly what they'll get' (NCC, 2008b, p1). To this end, as businesses accounted for a major

proportion of peak period congestion and wanted improvements to public transport, it was argued to be fair to charge businesses to fund the improvements.

In addition, a further issue was highlighted with respect to instances where employers pay the levy but do not benefit from the public transport improvements using the WPL revenue. However, NCC stated that it is a 'misconception that the benefits of the WPL scheme will go chiefly to NET users while the costs will fall on a wider group' (NCC, 2007e, p18). This is because although businesses on the NET extension will benefit from a new and improved public transport service, businesses not served by the tram or bus services 'who must continue to use a car will benefit from the implementation of a WPL through experiencing a lower level of congestion' (NCC, 2007e, p18).

Impact on Business

An issue was also highlighted that in response to the extra business cost, businesses would avoid locating in Nottingham and that existing businesses would move out of the city. However, analysis by PricewaterhouseCoopers indicated 'the establishment of a WPL will not have a significant impact on business investment decisions but overall will bring positive economic benefits from improved travel conditions ... [Moreover,]there are clear benefits to users of public transport who will experience a step change in public transport provision' (NCC, 2008a, p6). It was also found that 'the financial impact of the WPL was not significant ... [as the] costs would be less than 0.5% of turnover for the vast majority of eligible employers' (NCC, 2008a, p69). This low impact on employers in relation to turnover coupled with the benefits from the improved public transport meant NCC thought the WPL was unlikely to have a significant negative impact on businesses moving in or out of Nottingham.

Displaced Parking

Prior to the implementation of a WPL, the examiner recommended areas that may be susceptible to displaced parking are identified and contingency plans are established in order to reduce its impact. This is because employers argued that if a charge was introduced, many employees would search for on-street parking close to the workplace so as to avoid the charge (NCC, 2007d). In response to this, NCC developed a list of areas where parking may displace to. In addition, NCC stated that following implementation, a comprehensive study would be carried out to identify any problem areas and there would then be consultation with the local community to develop solutions to minimise the effect of displaced parking at these locations. These additional costs would be added to the operational cost of the scheme (NCC, 2007d).

Public Transport Improvements

In the examiner's findings it was highlighted that the link between the WPL and NET Phase Two was significant and therefore the benefits of NET Phase Two need emphasising. This is because the examiner found that some respondents from the consultation did not understand 'that there are both direct and indirect benefits associated with the WPL scheme' (NCC, 2007d) and that many of the benefits will be achieved indirectly. It was also highlighted that the council did not intend to measure the success of the WPL 'in terms of the number of drivers switching from workplace parking to public transport, but in terms of the overall level of congestion on the network with and without the WPL' and NET Phase Two (NCC, 2007d). In response, NCC stated that they would improve the communication of the link between the WPL and the tram to ensure the indirect benefits of the WPL were understood.

A further issue was that due to the negative impact on employers with respect to the increased business cost, the importance of the promised public transport improvements being realised quickly was identified to ensure businesses and investors see a clear relationship between the WPL and the associated benefits of improved transport (NCC, 2007d). This is because if the link is not established or the improvements take too long, the WPL may be viewed negatively which could affect the success of the scheme.

Road User Charging Alternative

Based on the objectives the WPL intends to achieve, the examiner suggested that a RUC would be 'a fairer way of taxing commuters, investing in public transport and reducing the growth in congestion' if there was no time restraint in place (NCC, 2007d, p3). However, NCC stated that RUC was rejected on the basis that it posed a much higher risk in comparison to a WPL due to the technological risk from the equipment available at the time, the increased public opposition, the increased cost both to the user and running costs, as well as the time constraints. The final reason a RUC was rejected was because of the lack of interest from neighbouring authorities for introducing such a scheme which would mean the attractiveness of Nottingham would be reduced for both visitors and shoppers due to the increased cost for entering the city compared with regional competitors. Moreover, shoppers and visitors would remain unaffected by a WPL. To this end, the council stated 'that it has not ruled out implementing a Road User Charging mechanism in the future that would replace a WPL scheme but that a WPL scheme is the right option for Nottingham at this point in time' (NCC, 2007d, p14).

Equity for Low Income and Part Time Workers

Equity concerns were also raised with regard to the affordability for low income earners. The council responded by stating that the initial cost of the WPL is significantly less than the equivalent cost of parking in the city centre and there would therefore be no exemption for low income or part-time workers. To manage this potential problem however, NCC intended to encourage employers to develop travel plans to help mitigate the impacts of the cost on low income earners and manage it in a way that considers a variety of influencers such as parking space use and employee affordability should the cost be passed on. This is because it was stated that 'direct support and assistance will be provided to employers to minimise the burden of complying with the WPL scheme and the charge itself' (NCC, 2008a, p10) and that 'part-time workers, or shift workers should share designated spaces to spread the cost' of the levy for each space to minimise the impact on individual workers (NCC, 2007d, p22).

Exemptions

The main criticism with regards to exemptions was NCC's decision to exempt businesses with ten or fewer parking spaces but not the first ten spaces for employers with eleven or more spaces. First however, NCC stated that the decision for not charging for the first ten spaces was to reduce the administrative burden on smaller firms and businesses starting up and therefore businesses with eleven or more parking spaces already have the administrative burden of managing the scheme and therefore should be required to pay for all the spaces including the first ten. Second, it was highlighted that if the ten spaces 'were discounted in every case, the subsequent reduction of total number of liable spaces included within the scheme would result in an increase in the charge (in order to raise the target amount of revenue), thus increasing the charge for larger businesses, as well as reducing the direct impact upon congestion caused by the scheme itself' (NCC, 2007d, p23). This increased charge to meet the target revenue would therefore have a disproportionate impact on larger businesses which meant NCC thought it would be better to charge businesses with eleven or more parking spaces for all their spaces.

Multiple Sites in the Charging Zone

From the consultation, clarification was required as to whether an organisation with multiple sites within NCC's administrative area would be charged for the collective amount of parking spaces or on a per site basis. In response to this, NCC stated they would charge employers based on the number of parking spaces at all sites in the area for numerous reasons. First, this was because if the levy applied on a site by site basis, organisations with numerous sites in the area with less than eleven employee

parking spaces would receive a 100% discount regardless of the size of the organisation. This would affect the revenue. Second, the rationale behind discounting 10 or less spaces was to reduce the administrative burden for smaller companies. Therefore, if the charge is applied on a site by site basis, then larger companies with multiple sites would avoid the charge 'which is then no longer in line with the original rationale' (NCC, 2007d, p25). Third, if the levy was charged on a site by site basis, NCC thought that it would 'encourage businesses to break up their parking provision into multiple sites' complicating the administrative assessment of exemptions (NCC, 2007d, p25).

Introducing during Economic Climate

The final concern was introducing an additional business cost during an economic downturn. NCC however refuted the argument that introducing a WPL during the current economic was an issue because it was argued that 'to stand still now when times are tough is the easy option. Forward thinking local authorities who are developing plans to tackle congestion and invest in better public transport will be in a much stronger position when the recession ends' (NCC, 2009, p1). Therefore by making improvements and providing investment in the city, NCC felt the WPL would benefit Nottingham in the longer term as opposed to adopting a do-nothing approach due to the economic difficulties.

The next section will provide a brief summary of the business case as to why the WPL was right for Nottingham as well as the submission of the WPL Order for approval.

6.5.4 WPL Order

Following the consultation, NCC moved closer to introducing a WPL by developing a Business Case, as to why a WPL would be right for Nottingham. In this report, it was stated that a WPL was believed to be an appropriate tool because (NCC, 2008a, p4):

1. *'WPL is a demand management tool which focuses on commuter parking, a main determinant of congestion, particularly at peak periods;*
2. *WPL will further encourage the uptake of workplace travel plans and responsible parking management policies;*
3. *WPL also applies as a land use planning tool in encouraging employers to give stronger consideration of the development potential/costs of land used as parking in the City; and*
4. *WPL represents a financially efficient, high value for money proposal, with relatively low development costs and shorter implementation timescales than alternative charging*

mechanisms. This is particularly important in terms of securing NET Phase Two implementation in the most cost effective manner, in line with the proposed delivery programme and associated budgetary projections. Significant delay to NET Phase Two delivery would result in substantial cost increases and risk to successful project delivery, as well as a delay in delivery of benefits.

5. *The 'WPL package', namely a levy on commuter parking combined with funding for improvements in public transport, will have a direct and an indirect impact in encouraging more sustainable travel behaviour and mode choice.'*

Based on this justification, NCC submitted an Order on the 15th May 2008 for approval by the Secretary of State with an initial target for the Nottingham WPL to become operational by April 2010 (NCC, 2008a). Following some modifications based on recommendations from the Secretary of State, the Order was approved on July 31st 2009 (DfT, 2009c). One of the key modifications from the original order was that charging would not begin until April 2012 in consideration of the economic downturn (DfT, 2009c). This two year delay was because there were concerns that introducing an additional cost to business would be detrimental during an economic downturn and the additional time could be used by NCC to provide increased clarity on the scheme and provide business with support with how to absorb the costs (DfT, 2009c). An additional recommendation from the Secretary of State was that the scheme should be introduced in April, 2011 with all employers receiving a 100% discount. This was to allow the council and employers 'more time to plan for the introduction of the licensing scheme and charges' so that charging could begin in April 2012 without issue (Rolstone, 2009, p7).

Licensing for the scheme began in July 2011 and was followed by a legal obligation to have a licence by October 2011. Other modifications were changes to the wording of the Order as well as to ensure 'that the exemption from charging for workplace parking places provided at fire and rescue service premises, police force premises and qualifying NHS [National Health Service] premises applies only where the charge payer is the fire and rescue service, the police force or the NHS and not to parking places provided for employees of other organisations located within the premises' (Rolstone, 2009, p7).

6.5.5 Summary

So far, this chapter has presented the development of the WPL in Nottingham. It has highlighted the concerns from the public examination as well as the responses from NCC including the reasons behind why decisions were made. A common theme with regards to the responses from NCC was to reduce

the complexity and administrative burden of introducing and operating the scheme. This is because NCC designed the WPL scheme 'to be simple, easily understood, enforceable, non- bureaucratic and create a minimal amount of administrative burden' (NCC, 2008a, p10). What's more, whilst it has been identified that NCC were in contact with other locations around the world with a parking levy, there was little information with regards to the actual support obtained. What is clear however is the significant amount of work and resource required to reach the point where a WPL is at a point where it can be introduced. Figure 6.5 presents a timeline of the key events of the WPL in Nottingham. Following this review of the development of the WPL, the next section will present the details of the design of the scheme.

Figure 6.5 – Timeline of WPL in Nottingham

1998	• Workplace Parking Levy is first considered by government in the transport White Paper, A New Deal for Transport: Better for Everyone as a measure to manage congestion (DETR, 1998a)
2000	• Local authorities are given power to introduce a Workplace Parking Levy in the Transport Act 2000 (DfT, 2000)
2001	• After initial interest within the Charging Development Partnership, only Nottingham remain seriously interested in introducing a Workplace Parking Levy
2005	• NCC commission Pricewaterhouse Coopers to carry out a study of the potential economic impact of a Workplace Parking Levy
2007	• Pricewaterhouse Coopers carry out an addendum report of the economic impact • Public consultation, public examination and business case produced for a WPL in Nottingham
2008	• NCC submit the WPL Order to the Department for Transport for approval by the Secretary of State
2009	• WPL Order is approved by the Secretary of State on July 19th
2010	• WPL was originally planned to be introduced on April 1st but was delayed due to economic climate
2011	• Licencing for the scheme begins on July 1st with a legal obligation for all employers to be licenced by October 1st (100% discount applies to all)
2012	• Charging for the WPL begins on April 1st

6.6 Design of the WPL in Nottingham

This section will assess the details of the WPL in Nottingham. First it will present an overview of the WPL scheme in Nottingham and will then provide details with regards to exemptions, the cost of the levy, licence application, WPL expenditure as well as penalties and enforcement.

The Nottingham WPL was introduced as a city wide charge covering all of the administrative area governed by NCC and not the urban or Greater Nottingham areas administered by Nottingham County Council (NCC, 2008a). The scheme required employers to apply for a licence stating the maximum number of parking spaces required for employees; pupils or students attending a course of education or training; or regular business visitor spaces, at any one time and pay an annual charge calculated using the cost of the levy and the maximum number of spaces. It is the employer's responsibility to pay the levy although they are able to recuperate the costs by passing the charge on to their employees. For workplace premises partly inside and outside NCC boundary, only parking spaces inside the boundary will be liable to the levy (NCC, 2012c).

6.6.1 Exemptions

Exemptions applied to two different categories which are outlined in Table 6.3. The first group were vehicles or spaces where the occupiers were not required to licence the spaces. The second group were for locations or spaces where the occupiers were required to obtain a licence for monitoring and enforcement purposes but would receive a 100% discount. This licensing procedure therefore meant that regardless of whether an employer is liable to the charge, all employers within the zone were required to obtain a licence stating the number of workplace parking spaces provided.

Table 6.3 – Exemption Categories

Licence Not Required	Licence Required
Parking places used by customers	Parking spaces at emergency services
Fleet vehicles not used for the journey to work	NHS frontline services
Vehicles loading / unloading	Organisations with 10 or fewer liable parking places
Motor cycles	Disabled parking places
Business visitors not attending their regular place of work	
Vehicles belonging to people who live and work at the same premises	
Display vehicles	

Source – Data modified from NCC, 2008a

6.6.2 Licence Application

From July 2011, employers were able to apply for a WPL licence via post or an online application with all employers legally obliged to have a licence by October 2011. During this initial licence application process, NCC supported employers with any difficulties (NCC, 2012d). Charging began in April 2012 and employers would be required to renew their licence at 12 month intervals. Once a licence had been granted, the number of spaces could be increased or decreased using an online account however employers received no financial benefit unless a reduction in the number of spaces applied for a three month period or longer. What's more if an employer wished to reduce the number of licensed spaces, one month's notice was required for the reduction to come into effect and the employer would be reimbursed at the end of the year if a refund was applicable (NCC, 2012d). Employers paid their WPL bill via a direct debit (monthly or annually) or an annual invoice.

6.6.3 Cost of the Levy

When the scheme was initially proposed to be introduced in 2010, the cost per parking space was expected to be £185. This was calculated on the basis that a WPL would be £150 at 2005 prices and that there would be an 8% annual increase until the charge was introduced (PWC, 2007). Once charging began, the increments would then increase to 18% each year up until 2014 at which point increases would be subject to inflation. However following the delay in consideration of the economic downturn, the costs were revised upwards and are presented in Table 6.4.

Table 6.4 –Cost of a parking space

Year	Cost per Space
2012/13	£288
2013/14	£334
2014/15	£364
2015/16	£381
2016+	£381 (+ inflation)

Source: WPL Charging and Payments (NCC, 2012c)

The costs were established in order to the raise revenue required for the proposed public transport investment programme based on the estimated number of liable spaces. Furthermore the incremental increases were set to reflect 'the phased introduction of improved public transport provision facilitated

by the WPL – initially Nottingham Station improvements and consolidation of the Link bus network and then further expansion of Link buses, better integrated bus services, ticketing and information, and development of NET Phase Two’ (NCC, 2008a).

6.6.4 Revenue and Costs

The WPL was expected to raise an average £12 million a year over the life of the scheme up until 2030 (NCC, 2007f) and the revenue during the initial years was expected to be lower due to the lower cost of the levy. The annual administrative costs of operating the scheme in Year 1 was estimated at £1 million, with the remainder of the revenue used to improve local transport (NCC, 2007f). A major proportion of this revenue would then be used to fund part of the local contribution of NET Phase Two whilst other investments included ‘the Hub’ railway station project, investment into the Link Bus network as well as business support. A detailed expenditure plan was constructed (NCC, 2007f) and an overview of the estimated spend on each project as part of the WPL package is provided in Table 6.5.

Table 6.5 – WPL Expenditure

Project	Estimated Total Cost	Expected WPL Contribution	Other Funding Sources	Delivery Date
NET Phase Two	£400m	£67m	£300m government funding £33m local contribution	2014
The Hub	£65m	£10m	£55m from Network Rail, East Midlands Trains and EMDA	2014
Link Buses (Current Network and further development)	£2.7m per annum	Up to £2.7m per annum	Other potential funding sources to be identified	2012 onwards
Business assistance and displace parking	£0.6m per annum	£0.6m per annum	N/A	2012 – reviewed after 3 years

Source: Data modified from NCC, 2008a, p58

6.6.5 Penalties and Enforcement

Two types of civil contraventions were established; these were failure to have a licence or failure to licence all the workplace parking spaces provided. Where an employer was found to be committing an offence the employer would first have the opportunity to correct the error before a Penalty Charge Notice (PCN) was issued. If however an employer commits multiple offences, a PCN would be issued and would cost 50% of ‘the annual charge per unlicensed place for each day a contravention occurs’ and if non-payment occurs it could result in a County Court judgement (NCC, 2012d, p17).

There were also two types of criminal offences established which could lead to prosecution in the Magistrates or Crown Court depending on severity of the offence. These were issued if an employer was found to intentionally provide false or misleading information or if an authorised NCC officer was refused or obstructed entering a premises at a reasonable time for compliance purposes (NCC, 2012d). These offences could lead to a police investigation and if convicted, an unlimited fine and/or terms of imprisonment (NCC, 2012d). In order to ensure employers comply and the scheme is enforced, NCC carried out 'routine' checks to verify employers have licensed the correct number of parking spaces and have a valid licence (NCC, 2012d).

6.7 Operation of the WPL

As was indicated in Chapter 5, there was significant interest with respect to the introduction of the WPL in Nottingham. However, it was stated that no recommendations would be made until after the formal evaluation of the Nottingham scheme. Despite this, some preliminary results have been identified. First, Councillor Urquhart stated (House of Commons, 2013a):

[The] first year has been a relatively positive one, in that we have seen compliance by the employers who are required to license. We have not had to take any enforcement action under the WPL at all. We have managed to secure the income stream and it is absolutely ring-fenced for transport projects, those being tramlines and improvement to our station and our subsidised bus network, the Link bus network. In that sense, it has been positive for us.

We have people studying all the potential outcomes for the levy, including the question of whether businesses would choose to relocate elsewhere and whether we would see a decrease in inward investment, and all of those kinds of things. With the caveat that we are only one year in, currently we have not seen businesses moving away and we have seen a very healthy level of interest in inward investment in Nottingham, given the limits of the current overall economic climate that everybody everywhere is suffering from.'

At the same committee meeting, the then Transport Minister, Norman Baker, indicated that with respect to the impact on business, that despite the resistance of 'one or two major employers in Nottingham ... the jury is out' (House of Commons, 2013a). Moreover, it was added that 'rather than the prejudices or assumptions on both sides as to what the consequences will be, we will have to wait and see what the reality is [from the formal evaluation] ... which will be an interesting experiment'.

This view of claims from both a positive and negative perspective of the WPL extended further with respect to the impact on the city centre. This is because it was stated that although a charge on parking in the centre may encourage business to locate outside the centre, 'others will argue that if you remove a number of vehicles, or discourage them, from the town centre and get more people walking and cycling without vehicles impinging upon them, that will make it a more attractive place to have a business' (House of Commons, 2013a). What's more, it was also stated that towns are thriving in Germany where vehicles are banned and therefore lessons can be learnt from abroad.

In the first year of the WPL in Nottingham, 'the scheme collected £7.8 million in revenue ... [which equated to] £7 million net after operating costs' which was spent on the designated transport improvements (House of Commons, 2013a). The rest of the findings in this section have been identified from documentation acquired during interviews with respondents in Nottingham which will later be described in Chapter 7. Using this documentation it was found that £8.45million was raised in the second year of the WPL which has been spent on improving local transport. Specifically, the redevelopment of Nottingham Railway station was completed in the spring of 2014 and Net Phase Two remained scheduled for completion during the winter of 2014. These were the two projects which were the major deliverables using the revenue raised from the WPL and therefore indicate that despite the scheme being operational for over two years, the full package of the WPL has not yet been realised.

For this reason, it was once more reiterated that the evaluation of the scheme cannot be completed until the 2016/17 financial year at the earliest in order to draw meaningful conclusions. At this point NET Phase 2 will have been operational for over a year, the disruption caused by construction works during an expansion of the road network will be finished and it will allow time for employers as well as individuals to adjust their travel behaviour to the new public transport options. The road network expansion is the dualling of the A453 to the South West of the city where delays are significant (Figure 6.3) as well as improvements to the Nottingham ring-road.

The remaining information presented was identified in documentation obtained during the interviews that will be described in Chapter 7. During the first two years of the scheme, there had been 100% compliance of all liable employers and no PCNs were issued for non-compliance indicating few, if any, issues with enforcement and penalties. For these reasons, it was argued that the WPL had quickly become embedded as 'business as usual' for employers. What's more, as of summer 2014, 38% of employers affected by the WPL had car park management schemes whereby employees were charged to park at work, which was primarily associated with the larger employers.

In terms of businesses moving in to the City, a NCC investment team had the responsibility of facilitating inward investment by working with employers wishing to locate in Nottingham. This team found that investors indicated that the most important factor when considering locating a business was the access to a workforce with suitable skills. It was therefore indicated that enhanced public transport would be favourable when making this first priority as to where to locate. The secondary concern was the fixed costs of the site which include the lease period, the rent and incentives to off-set this. Only after these factors were considered were the running costs considered which include business rates and other costs, such as a WPL. Moreover, as the cost of the WPL was less than 1% of turnover for the majority of employers as well as the option for employers to mitigate the costs in their entirety by passing the charge on to employees, it meant that the impact on investment was not as negative as stated in some quarters.

To this end, the inward investment team highlighted that in the first two years, of the WPL they had supported 23 companies with locating or expanding within Nottingham which had created 1198 jobs. Specifically, this was 8 companies with 897 jobs in 2012/13 and 15 companies with 301 jobs in 2013/14. The drop in jobs between 2012/13 and 2013/14 is because a large company established a new regional distribution centre which created 600 new jobs in the first year and that historically the second year figure was still high. Overall the inward investment team had dealt with 351 enquiries since the WPL had been introduced (175 in 2012/13 and 176 in 2013/14) and had seen no drop in enquiry levels from previous years. Moreover, in 2014 an additional business announced they would expand in the City creating an estimated 170 new jobs which was also expected to increase over the next five years. A major factor influencing the decision to locate in the city rather than a county location was the current and new transport links to the business park which were being improved using the revenue from the WPL.

6.8 Chapter Summary

This chapter has presented the findings from a documentary analysis with respect to the WPL in Nottingham. It has found that although Nottingham has a good record on transport, a large proportion of commuters that work in the city reside outside the city boundary which leads to high car use particularly during peak periods. It has also described a transport gap in Nottingham between the demand placed on the network and the supply in future years which led to a desire to reduce congestion and further improve local public transport. It has outlined the options NCC explored to address these issues and

the reasons as to why NCC identified a WPL as the best option. This was because of the importance of NET Phase Two and the need to raise local revenue.

The later parts of the chapter described the public consultation and examination, the Order of the scheme as well as the design considerations that had to be made. At this point, it is worth highlighting that once the consultation had been completed and the legal Order submitted, it was still a further 4 years until the scheme was operational. This however, was in part due to a delay in consideration of the economic climate. The final part of this chapter outlined the operation and the initial positive impact of the scheme so far using documentation acquired from the interviews; these will now be described in the following chapter.

Chapter Seven: The Nottingham Workplace Parking Levy

7.1 Introduction

Following the National and Nottingham documentary analysis, this chapter presents the results of 31 semi-structured interviews undertaken between February and April 2013 (approximately one year after the WPL became operational). These interviews were undertaken, in part, to satisfy objective 3; *to examine the views of key stakeholders with respect to the introduction and operation of the WPL in the City of Nottingham*. The key stakeholders that were interviewed are outlined in Table 7.1. All of the respondents were asked a fixed set of questions (Appendix A) except the Australian Parking Levy Expert who was asked a variation of the questions due when they were based in Nottingham.

Table 7.1 – Interview Respondents for the Nottingham Sub-Case Study

Group	Role	Coding	Group	Role	Coding
Councillor	City (1)	C1	Employer	Medium manufacturing business	E1
Councillor	City (2)	C2	Employer	Small sized service business	E2
Councillor	District	C3	Employer	Large sized service business	E3
Councillor	County	C4	Employer	Medium manufacturing business	E4
Councillor	City (Opposition Group)	C5	Employer	Medium sized financial business	E5
Officer	City: WPL Team (1)	O1	Employer	Large educational establishment	E6
Officer	City: WPL Team (2)	O2	Employer	Medium sized office business	E7
Officer	City: WPL Team (3)	O3	Employer	Small sized software business	E8
Officer	City: WPL Team (4)	O4	Employer	Medium manufacturing business	E9
Officer	City: WPL Team (5)	O5	Other	Business Lobbying Organisation (1)	OT1
Officer	City: Former WPL Team	O6	Other	Business Lobbying Organisation (2)	OT2
Officer	City: Displaced Parking	O7	Other	Local Partnership Organisation	OT3
Officer	Senior City (1)	O8	Other	Trade Union	OT4
Officer	Senior City (2)	O9	Other	Property Developer	OT5
Officer	Senior City (3)	O10		Australian Parking Levy Expert	A1
Officer	County	O11		Seconded to NCC	

The respondents have been coded to facilitate the writing up of the interviews as well as to maintain anonymity of the interviewees. C refers to Councillors, O refers to Council Officers, E relates to Employers and OT represents Other bodies. The first section will cover the views of the respondents with respect to the problems the WPL was introduced to address. This will be followed by why the respondents thought the WPL was introduced as well how the scheme was implemented. It will then cover the issues and the impact of the scheme before a review of the likelihood of other UK authorities introducing a WPL in the future.

7.2 The Nottingham 'Problem'

In Chapter 6, it was found that NCC identified a transport gap between the demand and supply of the transport network. For this reason, NCC wanted to restrict the growth in car use to manage the issues associated with congestion and to raise revenue in order to fund public transport improvements. With the exception of one employer, all of the respondents [29 respondents] indicated they viewed congestion in Nottingham as an issue. This was because OT2 suggested there was a lack of road capacity to accommodate the demand for road space during peak periods and was because of a lack of investment into the road network during the *'60s, 70s and 80s when road building was popular'*. Due to this constrained network, OT3 stated that accidents and breakdowns have a significant impact on the flow of traffic which make the journey times of travelling by car very unreliable and uncertain (OT3). A common view amongst the respondents was that *'congestion is mainly during the peak periods which is primarily commuters and not congestion related to leisure users, shopping trips or events'* (O3).

With regard to where the congestion exists, E7 stated that *'the routes in from the M1 [motorway to the west of the City] have always been bad as they filter down to a single carriageway and so there is a problem with congestion in these areas at peak time'*. However despite the acknowledgement of congestion being an issue, three employers shared the view *'that it is just a factor of any modern city that there is congestion on the ring road at times and I don't think Nottingham has a particular problem as it's not much different to any other city'* (E5). At this point, it is worth stating that the respondent that stated congestion was not an issue admitted they always used public transport and benefited from bus lanes which meant they were oblivious to traffic levels in the city (E3).

The second problem that will be addressed was the debate surrounding public transport. More than two thirds of the respondents [21] thought that public transport in Nottingham was good whilst nine responded negatively; this was primarily 'Employers' [5] and 'Others' [3]. First, public transport was

viewed positively due to the number of transport awards Nottingham has won. Indeed, O9 stated that NCC has *'a really fantastic track record of investment in public transport as a local authority and we have won transport local authority of the year again this year and we have one of the most extensive public transport infrastructure networks outside of London'*. Despite the good levels of public transport, two NCC officers indicated that it is important to maintain the current service and build on the existing success. For example, O4 stated that NCC *'have a good transport system and a good reputation for transport in Nottingham and we have to work hard to keep it like that'*. Whilst these views were mainly confined to 'Officers' and 'Councillors', 'Employers' [4] and 'Others' [2] also shared this view.

In contrast however, there was the view that public transport was not practical for some commuters as it is too expensive; it does not offer a realistic alternative to car use particularly at unsociable hours as well as issues associated with passengers missing buses. The reason passengers were missing buses was caused by a high number of buses on the Nottingham network which meant that *'if you are standing at a bus stop that is used for multiple buses and your bus comes along while a different bus is at the stop, there is no way of attracting its attention and [therefore] it will just drive straight past'* (E8). In response to this, O4 stated that the increased capacity of the tram network will relieve some of the issues associated with multiple buses arriving at a single stop.

In summary, when the interviews were conducted congestion was viewed as an issue in Nottingham by the majority of the respondents and was forecasted to get worse. In addition, nearly two thirds of the respondents thought public transport in Nottingham was good although there were issues raised by employers with the practicalities and the cost of using it to commute.

7.3 Reasons for the Nottingham WPL

This section will address the views of what the WPL is and the reason why it was introduced. There were five reasons why the respondents thought the WPL was introduced; these were to raise revenue [24]; to manage congestion [9]; to improve the economic future of the city [7]; to make an environmental improvement [4]; and to allow NCC to be viewed as pioneering to boost political credentials [4]. It could therefore be argued that the WPL was primarily viewed as a revenue raising tool for NCC. Table 7.2 outlines the views of each of the interview groups as to why they thought the WPL was introduced.

Table 7.2 – Reasons for the Nottingham WPL

Reason	Employers	Councillors	Officers	Other	Total
Revenue Raiser	9	4	6	5	24
Congestion	1	1	6	1	9
Future Prosperity	0	1	6	0	7
Green Measure	1	0	2	1	4
Political Legacy	2	0	2	0	4
Total (vs no. of category respondents)	13 (9)	6 (5)	22 (11)	7 (5)	47 (30)

The reason for the increased number of responses in comparison to the number of respondents is because each individual respondent was able to suggest multiple reasons as to why the WPL was introduced. The results indicate Officers identified the highest number of reasons as to why the WPL was introduced. This view supports the findings in Chapter 7 that the WPL will deliver both direct and indirect benefits to multiple areas.

The first and most popular reason for the introduction of the WPL in Nottingham was to raise revenue [24] in order to improve local transport, in particular NET Phase Two [22]. Employers begrudgingly recognised a reason why NCC introduced a WPL as E4 stated *'I can see why the council have chosen the WPL, because it is a very simple, cost effective way for them to raise revenue for the tram'*. C1 however indicated the importance of improving local transport to facilitate economic growth in the city as well as the leverage the WPL has as it was stated that the WPL was introduced *'to provide the local contribution to the tram in order to lever in Government money as well as to generate an independent source of income which was not dependent on Government ... this was because capital investment is drying up in local Government and in order to keep cities economically growing you need to keep improving your transport systems which requires a source of capital'*. Furthermore, the leverage of the WPL was highlighted by O1 as it was stated that for *'every £1 we put into the tram we get £3 from Government; the hub project is a £65 million project and we are putting £15 million in and so £50 million is coming from other sources; therefore all these improvements are being made because we have our local contribution from the WPL'*.

The second most popular reason for the introduction of the WPL was in order to manage congestion [9]. O7 argued that the WPL was introduced in order to target *'the bulk of peak congestion traffic'*, commuters, whilst minimising the impact on visitors or shoppers. C4 however stated the improvements would primarily be because of better public transport but ultimately stated that *'one way or another, it is*

to reduce congestion and coerce people out of their cars'. Moreover, at a late stage in the interview, C1 highlighted that they hadn't 'mentioned reducing car usage yet and [that] this was a very secondary factor, the reduction in car use I mostly envisaged would come from the improved public transport infrastructure so people could then choose not to use their cars rather than a direct impact [from the cost of the levy]'.

The third reason for the introduction of the WPL was exclusive to respondents within NCC and was to ensure future prosperity of the city. This was because it was suggested that the WPL needed to be viewed as a long term project and vision and not just a transport measure. One example of such a view was *'the WPL would buy the tram that is really important for the future of the city and it is not just viewing the tram as a transport link, but as a regeneration and an image thing which brings Nottingham into the 21st century like other leading European cities; it is therefore very much about creating a new city rather than just the link it is providing'* (O8). C1 also indicated that *'transport is probably one of the most important aspects of any economic growth and therefore you have got to have good systems; it is also one of the most important aspects of an inclusive and integrated society and therefore you need good public transport which needs to be relatively cheap'*. This therefore emphasises the point that NCC view good local transport to be vital for achieving economic growth and the vision to be similar to other European cities.

The fourth although less popular reason as to why the WPL was introduced was to generate an environmental benefit [4]. Two respondents thought the WPL was introduced directly to achieve an environmental benefit and two thought the benefit would be secondary. For example, the indirect benefit was highlighted by E2 as it was stated that *'I still think it is an income generator over an environmental decision but with it comes that benefit'*.

The final reason was the view that NCC were trying to achieve a political legacy. Indeed, two NCC employees stated that the WPL would have a positive impact on the City as O3 stated *'a key component for Nottingham is the legacy in history in political leadership around transport because of a large political majority that has spread confidence and allowed our politicians to implement a WPL which will boost the NCCs political credentials on how seriously it takes public transport and the investment required to make public transport sustainable; it is something we should be very proud of'*. Despite this, two employers suggested that NCC were introducing the WPL not in the belief that it was the best thing for the city, but instead to boost their own individual credentials by introducing a controversial scheme. This because E1 stated that Nottingham is *'the test case, so I have no doubt that*

in my cynical view of the world that there are certain people at the City Council that think they will get some kudos for being the fore runners'.

In addition to these reasons as to why the WPL was introduced, many respondents also offered their views as to alternative approaches that would better achieve the aim they believed the WPL was introduced to address. The alternative that was raised most frequently was a RUC [7]. This was because a RUC scheme was viewed to be fairer and more effective at tackling congestion as it would mean *'people who actually contribute towards congestion actually pay and then people can choose what route they choose to take to get to work'* (E4). Despite this view, NCC officers and councillors provided justification as to why a WPL was seen to be favourable as well as the difficulties associated with introducing a RUC in Nottingham. C1 suggested that NCC *'deliberately steered away from congestion charging because it would have a big impact on the retail, and the boundaries meant it would have been very expensive to implement. The other advantage of WPL is the ratio of cost to collect to the benefit which meant the total revenue is far better to that of RUC'*. O8 further highlighted the political benefit of a WPL as it was stated that *'one of the reasons for the WPL is because Nottingham has got quite narrow and small boundaries which mean a lot of people who work in the city come from the outside [and so] a lot of the people who might actually have to pay are not Nottingham residents. So if you polled Nottingham residents most of them wouldn't be against it but if you polled the wider area you would probably get a majority against because they are the people driving'*.

The second alternative offered was for NCC to pursue an expansion of the road network [2]. Despite this, O7 stated that *'Derby have just expanded their ring road but that is only sustainable for so long and I think most places where you build a new road or lane, it soon fills up and you have soon got similar problems in different areas'*. For this reason, expanding the road network was not seen as a long term solution to address the issues in Nottingham.

The respondents also questioned if there was a need for change. This was because of the view that existing public transport already served the city well and therefore the tram was not required. This is because E2 stated that people in Beeston, where the tram extension serves, *'don't want the tram as there isn't the need for it; Beeston has already got the train station, the buses and we aren't even that far out of town'*. Despite this, NCC respondents highlighted that *'doing nothing was not an option similarly to how we approach saving our planet, it is not an option ... therefore I think the WPL is one of the best solutions and compromises'* (O6).

The final alternatives presented by the respondents were different approaches to raising the required revenue for the tram. One employer argued that *'Nottingham is a large city with 300,000 people living in the catchment area, and if they said to every person in the area that they would put a pound a week on their council tax, people would moan like hell but they could have raised money that way'* (E5). What's more, OT2 suggested that *'a complementary business rate across all businesses in the city would have been much fairer'*. Whilst these methods were not feasible or practical, it does highlight the frustrations amongst the business community with respect to the perceived unfairness of the WPL to fund local transport improvements.

In summary therefore, this section has highlighted how the WPL is primarily viewed as a measure to raise revenue to fund the tram extension. Despite this, the benefits the WPL will deliver to congestion and the environment were also highlighted although primarily by NCC employees. What's more, this section has also described the importance NCC place on improving and having a good transport system in order to facilitate economic growth. It has also highlighted the political benefit of a WPL if those paying the charge travel from outside the administrative area. The next section will address the views of the respondents with respect to the implementation of the WPL in Nottingham.

7.4 The implementation of the Nottingham WPL

This section will cover the issues associated with the implementation of the WPL. It will first cover the introduction of the WPL from a NCC perspective with respect to the development of the scheme as well as the support they received. It will then cover the reaction of the respondents to the decision when the WPL was decided upon as well as the consultation that was undertaken. This will be followed by a review of the respondents' views with regards to how the revenue was used, the council's performance as well how businesses managed the introduction of the charge at the workplace.

7.4.1 The development of the WPL by NCC

As NCC was the first authority in the UK to introduce a WPL, there were a number of issues that needed to be addressed. First, the respondents highlighted the difficulty of understanding the number of employer parking spaces that would be liable. This is because O6 stated that counting the number of employer parking spaces *'was extremely difficult because nobody knew how to count the spaces as it had never been done before'*. Therefore as there was no method to copy in order to understand employer parking, O8 stated that NCC *'literally counted the spaces and used all the methods that we could think of; this included sending out surveyors, using planning applications and using business*

rates'. The administrative effort of counting the spaces however was made easier because NCC had exempted businesses with ten or fewer spaces which meant NCC were able to focus on the larger businesses.

NCC respondents also suggested that the legislation was more focused on the introduction of a RUC as opposed to a WPL. This is because O6 worked on the WPL during the earlier years in Nottingham and stated that the legislation *'was a real mess, as the Transport Act 2000 was focused on RUC as that was what was important at the time and WPL was almost added as an afterthought; this meant there were mistakes in the Transport Act 2000 because it was sometimes a copy and paste of RUC; it was a total mess'*. For this reason, it was argued that it was easier for Perth to introduce their parking as the legislation was much clearer which meant O6 stated that *'if I could change one thing, it would be the definitions in the Transport Act 2000 and do it like the Australians did it. It would be either the people who own the property or the people who rent out the premises and not the occupiers; the owners and not the employers'*. This was to make the administration of introducing a WPL easier for NCC.

This reference to the Australian legislation therefore provides the first indication that Policy Transfer was involved with the implementation of the WPL. In addition to this, NCC also sought support from Perth in order to understand how to implement a parking levy, the details of the scheme as well as to gain some insight into the potential impact of a WPL. The support included conversations, presentations as well as a one year secondment from an Australian parking levy expert to NCC. The benefit of this support was twofold. First was that the communication was able to shift the opinions of key NCC stakeholders that the WPL was the right measure for Nottingham and provide reassurance that the WPL would have a positive impact on Nottingham. This was because the parking levy leader from Perth *'came to Nottingham for a few days and gave some presentations which were absolutely key to convince senior officers and politicians in the Council ... it was such a relief'* (O6).

The second benefit was in order to develop the details of the scheme. This is because O8 stated that *'the boss of transport in Perth came over for a year with his family and helped us with the business case in 2003'* as well as to support and develop the delivery and administration of the scheme (A1) such as *'the specifications for the legal, operational and enforcement of the scheme as well as the issue of liability, penalties and the notices'* (O6). An example of this was to apply the levy to the whole of the political area due to the difficulties of making decisions with respect to which areas should be exempt (A1). A further detail was that as both levies were using the revenue to improve public transport, *'there were similar policy objectives in terms of linking the policy to a benefit and the selling and*

marketing of the package' (A1). This was identified to be important because 'at a political level it is clear to the community what they are getting, a bright shiny new light rail; whereas if you were to put on a few additional buses, this benefit is less impressive and tangible' (A1).

Despite these benefits, two NCC respondents questioned how useful some of the lessons from the Perth scheme were because of the operational and geographical differences. For example, A1 described how Perth covered all parking in the central area with differentiated pricing as opposed to a set cost for employer parking over the whole city as it was in Nottingham. However, whilst the usefulness of the support was questioned, the debate was with respect to how much of a benefit can be attributed to the lessons from Perth as opposed to if there was any benefit at all. This was because O1 stated that *'I think there were a lot of benefits from working with Perth but whilst the schemes are similar they are not the same and only are in the name. So whilst the principles are the same, some of the details are different. One benefit however was the comfort they provided us with, for example in Perth you didn't see a business exodus after they introduced the scheme which was great comfort to our politicians'*. Support was also received from DfT in addition to Perth.

The support from the DfT was indicated to be primarily financial to ensure NCC were able to afford the exploration, legal advice and consultancy fees required for the initial development of a WPL. NCC received £300,000 over two years which was highlighted to be in part to allow DfT to understand the WPL in more detail. Despite this, O8 highlighted that this sum was insignificant in hind sight as they *'needed to spend a lot of money on consultancy fees and legal fees to ensure it was unchallengeable and untouchable or at least as possible'*. Beyond this financial support, O4 stated that the DfT *'pointed us in the right direction of the primary legislation and said this is how it is going to work as well as outlining the parameters in which we could work and in which we couldn't work without saying you need to do x, y and z in general terms. But in terms of support for the development it was virtually all NCC that developed the scheme over a number of years and that is basically how it works'*. A1 also indicated that NCC received DfT support *'at the bureaucrat level but not at the political level because they did not want to defend it publicly but at the same time seemed happy for it to be introduced'*.

O6 also supported these views as it was stated that *'there was not enough [support] and the civil servants doing the work kept changing all the time which is what civil servants do, but it meant that by the time we were confirming different points, they were changing which meant I had to educate and train another person ... The DfT also did not want to appear publicly to defend the WPL so they were very much in the background and we were very much alone. That is why it was such a relief for me*

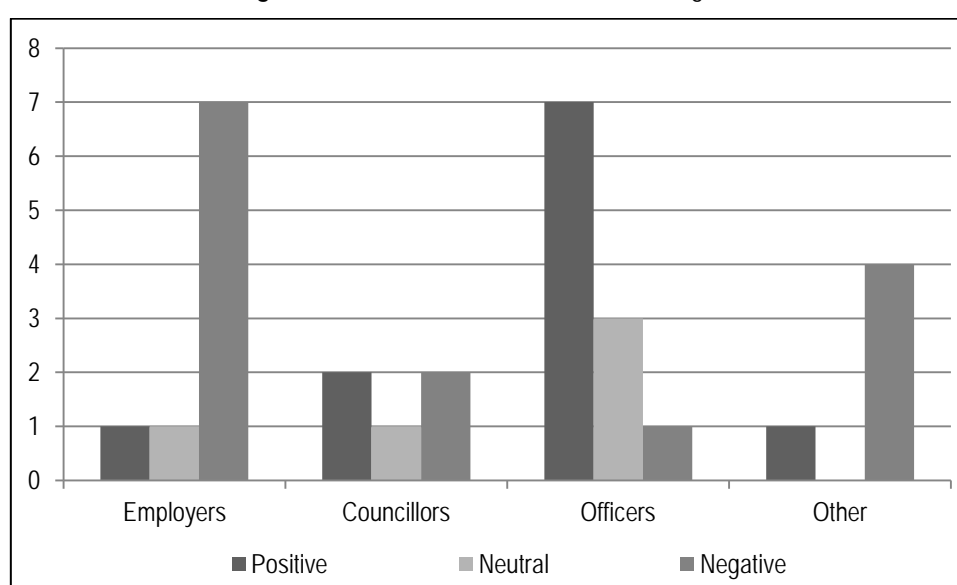
personally, but also to the Council, to have had some support and sharing of experiences from the Australian experience because we were feeling very isolated and lonely at the time'.

This section has therefore outlined the support NCC received from the Australian experiences of parking levies as well as from the DfT. It has found that the DfT primarily provided financial assistance but also indicated that the DfT were reluctant to fully support such schemes, this is similar to what was found in Chapter 5. What's more, whilst some respondents questioned the significance of the lessons learnt from Australia, there was generally the view that the transfer helped convince senior officers and politicians that a WPL was right for Nottingham as well as providing details with respect to the operation of the scheme.

7.4.2 Reaction to the Nottingham WPL

This section will outline the reaction of the respondents at the time they heard NCC were introducing a WPL. Figure 7.1 presents the varied reactions amongst the respondents. As could be expected, employers were generally opposed to the additional business cost whilst NCC respondents were all generally supportive or at least neutral with respect to the introduction of the scheme. The Councillors and Officers opposed to the WPL came from the non-NCC respondents. The 'Other' respondents were also generally opposed to the scheme.

Figure 7.1 – Reaction to the WPL in Nottingham



The most frequent reaction was a negative one [14] and this was primarily from non-NCC respondents. A flavour of the responses that were provided include '*appalled*' (E1), '*atrocious*' (E3), '*totally opposed*'

(OT4), the council had *'gone mad'* (C5), *'concerned'* (C4), *'misguided policy'* (OT2), *'disbelief'* (E4), *'very surprised'* (E5), and *'a bit dirty'* (E6). These views therefore highlight the significant opposition to the WPL. This view is summarised by E4 as it was argued that *'if you own your own premises, and you pay business rates, of which part of the assessment is your parking area, then how earth can anyone possibly charge you for the privilege of parking on something that is already yours and that in essence you are already paying a rate on anyway'*.

Despite this view, one employer reacted indifferently as they indicated that with their role as travel planner, they *'had known about it quite a while so not really surprised'* (E2). They instead focused on reducing the impact of the WPL on the business as well as identifying ways to encourage staff to use alternative means for getting to work. In addition to this view, one Officer charged with introducing the scheme stated that they *'knew it was going to be controversial because any scheme that involves charging anyone a cost that they didn't have before is not going to popular and that is inevitable from the start. So it was just a question of how this was going to work, who we were going to charge, what the criteria was for that and to be equitable'*.

The final reaction of the respondents with respect to NCC introducing a WPL was positive. Whilst these reactions were primarily confined the NCC respondents, E7 and OT3 also responded favourably. E7 supported the WPL because they were *'happy to go greener and [therefore] if the WPL manages demand for car use and encourages use of mass transit, then I think it is great'*. OT3 shared a similar view as they stated *'that you have got to do some sort of demand management if you are going to reduce congestion'*. Respondents from NCC also unsurprisingly indicated their support for the scheme when it was announced. These views stemmed from the belief that it was a measure that would bring numerous benefits to Nottingham including addressing the issues of congestion as well as raising the necessary revenue to fund the local transport improvements. This is summarised by C2 as they stated that *'I was pleased we were going to do something that tackled congestion on the one hand and enabled us to build fantastic public transport alternatives on the other; so a positive'*.

Three Officers gave further praise as they appreciated the unique boldness of the local politicians to take a risk which provided them the opportunity to implement a controversial scheme. This is because O9 outlined that their *'first reaction was what a fantastic city that has bold and inspirational leadership who are prepared to make bold and tough decisions and controversial decisions and what a great place to work'*. This view was shared by O10 as they stated that they *'thought it was a brave call and in some*

respect an act of faith and an experiment but I think an experiment that is worthwhile as the longer term benefits will be significant'.

This section has indicated how NCC respondents reacted to the scheme favourably on the basis that it would be good for Nottingham whilst many non-NCC respondents reacted with disbelief. This was because of a perceived unfairness of employers paying a charge for something which employers already pay for through the influence parking has on calculating business rates.

7.4.3 Use of WPL Revenue

As the majority of the respondents thought that the WPL was introduced to raise revenue, this section will cover the views with respect to how the revenue was used. Sixteen respondents supported how the revenue was used, four remained neutral and ten had a negative view (Figure 7.2). Once more, NCC respondents primarily supported how the revenue was used along with two Employers and two 'Others'. Similar to before, employers were the group most opposed to how the revenue was spent [6].

Figure 7.2 – Use of WPL revenue in Nottingham



There were three reasons highlighted as to why respondents disagreed with how the revenue was spent. First, was that two employers indicated that they would be required to pay the levy but would be receiving nothing in return as the majority of the revenue would be used to fund the tram. For example, E4 stated that the tram *'is not going to have any benefit to our business which made me feel that we are contributing towards the cost of it quite heavily and we are not going to get any benefit. I would therefore like to see a benefit to all businesses that are paying the WPL'*.

Second was because three respondents had negative views with respect to trams in general. This was because NET Phase Two was deemed to be very expensive as E9 stated that *'the tram is luxury that we cannot afford'* which is unlikely to ever make profit. The second reason was because it was suggested that if the revenue was not hypothecated to transport, it would be better spent elsewhere as OT5 stated that *'if you asked ten people in the streets of Nottingham of how to spend £500 million and you gave them a choice of three projects, one is NET Phase Two, one is Broadmarsh [a shopping centre] and one is sorting out our housing problem, I am not convinced that everybody would vote for the tram'*. Third, was the view that trams lack flexibility in the areas that they serve and have previously been phased out in the city as they were deemed impractical.

The third reason for a negative view was because of a lack of understanding with regards to how much is being raised, what the revenue is being used for or how long the improvements will take to be realised. One such example of this was provided by C4 as it was stated that *'I don't think we are getting the clarity of how much is actually being raised, it is very difficult to actually see where the money is going and I think there is no clarity around it. So if you were going to be supportive of the WPL and the tram by the way, you would need to know what revenue is being raised and where it was spent to make the connection because otherwise it is just another coffer for the city council'*.

Four respondents had a neutral view with respect to how the revenue was being used on the basis that they supported the improvements in principle but identified drawbacks elsewhere. For example, O11 indicated that they had *'mixed views on the tram as although they are lovely things that help the environment and regeneration of the area, I am unsure how much traffic will get displaced as Nottingham is already served so well by public transport'*. Moreover whilst O8 supported NET Phase Two, they suggested they would have liked to have had *'more revenue for more buses to cover bits not covered by the tram and also to just help out businesses more because the original idea was that by paying the WPL, businesses would get something back which would be obvious for them to see'*.

The most frequent view with respect to how the revenue was being used was a positive one [16]. This was because the respondents viewed the existing tram line as a success and were therefore supportive of NET Phase Two. O3 summarised this point as they stated *'NET line one has been fantastically well used and evidence shows that people in Nottingham will use the tram that didn't use other public transport modes and therefore it is effective at modal switch'*. There was also the view that the fixed infrastructure associated with a tram delivers a wider economic benefit that encourages investment where the line operates (O1) as well as projects the image that Nottingham is *'progressive, forward looking [and] modern'* (O3). The extension of the tram was also supported by employers despite the lack of support for the WPL as E1 indicated that *'trams are a good thing and therefore I am not anti-trams but instead anti-business cost I can't recover'*.

The second positive view was because the revenue was hypothecated for transport improvements on the basis that it made the scheme more equitable as well as reduced the resistance from the opposition as it was transparent what the WPL package would be delivering. C1 described this point as they identified that *'it is hypothecated which I think it had to be to take some of the edge off the resistance otherwise we would have had some real difficulty trying to persuade anybody [the WPL was right]'*. The third positive view was because the revenue was being used to deliver numerous improvements to ensure the benefits were felt by a wider audience; these included the railway station upgrade, NET Phase Two, bus subsidy and funding to help employers develop travel plans.

Eight respondents also highlighted the importance of the leverage of the WPL. C1 stated that the WPL *'provides you with a stream of capital for public transport that you wouldn't otherwise have which has also levered in millions of pounds of Government money which also has a multiplier effect. Transport gives you a good multiplier and so in addition to the Government money we also get a multiplier effect of the spend which is about 2.9'*. This leverage therefore meant NET Phase Two could be realised and also gave NCC *'the power and the ability to go and shop around and look and get the best deal. [This is because] there are lots of grants at the moment from the government but nobody has any money [due to the economic climate] but we do and we can put in £1 or 2 million to a bid and get matched funding of 50% or even more. And I think that for every £1 the levy generates, there is £3 worth of investment which is £10 worth of benefits which are big headline figures'* (O1).

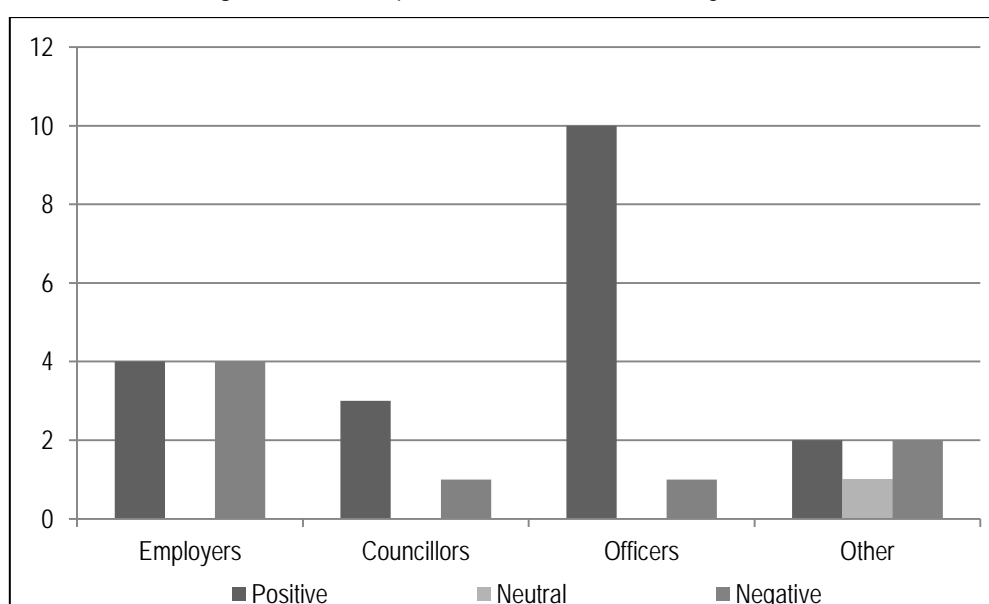
This section has outlined how the use of the revenue is primarily seen to be positive due to the support for the tram extension based on the success of NET line one as well the leverage the WPL creates. Despite this however, some respondents indicated that it would have been fairer if those that pay the

levy would experience the benefit of the scheme as examples were cited where some employers are paying the levy but not benefiting from the public transport improvements. Despite this, NCC officers did outline the wider improvements the WPL would deliver. However, the communication as to how the revenue was being used could have been improved to improve the understanding.

7.4.4 Performance of NCC

This section will present the views of the respondents with respect to how the council performed when the WPL was introduced. The majority of the respondents, including five employers, indicated that the council performed well [21], whilst nine respondents indicated that the council performed poorly. Figure 7.3 illustrates the views of the different stakeholder groups and indicates how the council performance was generally viewed positively.

Figure 7.3 – NCC performance when introducing the WPL



The first reason as to why the respondents thought the council did not perform well was because the council could have improved the communication with regards to the benefits of the WPL as well as the reasons for its introduction. For example OT3 stated that NCC '*could have done a lot more to make people really understand the reasons for the scheme as well as the benefits it was delivering*' particularly as E9 stated that '*there still might be some people in the office who don't know the cost or anything about the WPL [as the employer pays the levy]*'. In addition to this, it was also argued that the council performance would have been improved if concerns raised at the consultation were appeased by NCC making some modifications in light of the comments. This is because C4 stated that '*the thing*

about consultation is that you have to actually take notice of what people are saying, so I am not sure if the consultation was meaningful or if it was an exercise to simply tell people this is what they were going to do; a tick the box exercise'. Three employers however indicated that they were so opposed to the scheme, the council's performance was irrelevant. This is because E9 stated that the council performance was 'irresponsible completely; their agenda is completely different to mine and most other business people and they should have never introduced the scheme'.

The final improvement was a desire from NCC respondents to have flexibility in the legislation underpinning the WPL in order to make it easier to make amendments to the scheme. This is because the costs of the WPL are set and NCC *'have no control over the costs without a very cumbersome legislative process to unwind some of the previous legislation and that is a flaw because if we had flexibility, we could have taken decisions given the economic circumstance to say actually these ratchets that are built-in won't apply but we do not have the freedom because of the legislation'* [C2].

In contrast to this, the most frequent response was the council performed well when they introduced the WPL in Nottingham and although this was primarily the view of NCC respondents, interviewees opposed to the scheme also shared this view. This was primarily because it was recognised that being the first authority to implement a controversial scheme is difficult; for example *'the city have done incredibly well in being pathfinders and that once the decision to introduce the WPL had been made, they had to be firm; so in that respect I think they performed well'* (OT3). In addition to this, one employer also thought the price was set at a good level on the basis that for *'the first few years it works out at roughly £1 a day and you can't park your car anywhere else in the city park for that, so people will just begrudgingly pay it; therefore people can shout about it but people will just pay it'* (E4).

NCC recognised the difficulty of being the first to introduce a controversial scheme as O8 stated that the WPL *'was one of the most controversial schemes that we had implemented and we did so with very little fuss with very high levels of compliance and did it where there was no precedence in the UK which meant we were doing everything for the first time. So I think it went as well as it could have done and beyond our wildest dreams in terms of the implementation program'*. Moreover, C1 stated that they were *'astonished at how well it has gone'* as well as O5 who indicated that *'there was a 100% take-up and compliance of the licenses and the revenue is certainly coming in and so it is actually working well and it is actually coming together quite efficiently'*.

With respect to how it was introduced, O3 gave an indication as to why it had been so successful; this was because *'there was a huge amount of work that went into explaining how the scheme worked and trying to assist businesses and that has been done without any political back lash and so I would say it probably is an example of how to implement a WPL'*. In addition O8 stated *'it was the intention to bring it in quietly which has meant some people don't really know it is even in. We had a six-month dummy run to get everybody signed up and that has helped us achieve 100% compliance. There was relatively little media outrage and so it is going well so far'*. To this end, E5 stated that they received *'lots of information about the scheme and the website for licences was dead easy to use, so for me they couldn't improve how they introduced the scheme'*.

What's more, despite the negative views by some respondents with respect to the consultation, twelve respondents including two employers thought the consultation was pivotal to the successful implementation of the scheme. First, O5 stated that the consultation *'was one of the key elements of the success criteria and so the amount of money spent on the consultation and the amount of face-to-face contact and work that was carried out with larger employers to understand their very individual requirements as well as working with groups of smaller employers; I believe it was one of the things that we did really well and one of the things that led to the successful implementation of the scheme'*. In addition, whilst E7 questioned the motive of the reasons for the support and consultation they received from NCC, they indicated that the council performed well at convincing them to remain in the city due to them outlining the benefits the WPL package would deliver.

The decision not to hold a Referendum was seen to be a positive move by six respondents. This is because there was the view that Referendums for policies where a charge is being introduced is likely to get rejected. This is because it was stated that *'we didn't have a Referendum because Referendums kill any path finding charge like Manchester with their congestion charge'* (O3); this was on the basis that *'if you ask people to vote for a charge which they didn't pay before, then you may as well not bother as you are wasting a lot of money'* (O1). Moreover, the political fairness was explained by O10 as they indicated that it was *'democratic as it was a manifesto decision which meant it wasn't something the council slid through on the quiet, [instead] it was very much written large in their manifesto commitments'* for a number of years and therefore something the public had voted for. In addition to these views, O1 explained the complexity of undertaking a Referendum:

'It is much more complicated than a simple yes or no as people want the tram but do not want to pay for the WPL. Also who are you asking to vote, do you ask the employers as a single entity to have a single

vote, or do you ask the employees who will be paying or do you ask the citizens who live in the city and are affected by congestion every day or do you ask the county residents who are the ones who are commuting in to the city? I don't know you tell me. And then once I have asked each of them, how do I grade their vote because there are a lot less employers than there are employees, and there are a lot more citizens than employers; it just becomes a mess. [Therefore] how on earth are you going to do that and so we thought that by doing a public consultation, we could consult all of that'.

This section has outlined how the majority of the respondents thought NCC performed well when introducing the WPL and led to one respondent describing it as a model of how to implement a WPL. Despite this positive view, many respondents were surprised at how well it had gone as if they were expecting the implementation to be far more difficult. Whilst the opposition to how it was introduced was primarily from respondents opposed to the scheme, it was suggested that more could have been done to communicate the introduction as well as the benefits of the scheme. It has also indicated how the consultation was seen to be part of the reason for the successful implementation of the WPL as well as the complexity and therefore reason for rejecting a Referendum.

7.5 Issues with the Nottingham WPL

This next section will address the issues associated with introducing a WPL and will cover the introduction of the WPL during the economic climate at the time, transport in Nottingham as well as business and operational issues. When the WPL was introduced in April 2012, there was an economic downturn which meant nearly half of the respondents raised concerns with introducing an additional cost for business at the time [13]; whilst thirteen respondents had a neutral and four respondents saw it as a positive.

The negative views were primarily voiced by employers [6] and organisations representing business [3] as it was suggested that it was unfair to introduce an additional cost to business when many employers were already struggling with their finances. Indeed OT1 stated that *'businesses have got an awful lot to worry about at the moment trying to survive and the WPL is just another tax to add to the list which is something they could do without'.*

Thirteen respondents were however more pragmatic as they indicated that whilst the timing of its introduction was not ideal, it had long been planned and that the scheme had already been delayed once in consideration of the economic climate. Indeed this was the view of E6 as it was stated that

whilst it is *'never a great time to introduce a new cost, it has been so long in the making that it was just unfortunate timing and that's life'*. Moreover, OT4 also had a neutral view as it was stated that although *'you shouldn't introduce another charge in a recession, you could also say that infrastructure and investment are creating jobs which is precisely the thing we should be doing in a recession to get the economy moving and to get local jobs to revitalise the area; therefore I can see it from both sides'*.

This argument with respect to investment into the city was primarily the reason as to why a smaller number of respondents [4] thought the introduction of a WPL during a recession was a positive. For example C1 stated *'that it is probably, in a perverse way, even more necessary because what you are not getting is public sector or large amounts of capital investment in order to stimulate the economy ... [and] because firms are stacking up a lot of capital wealth which they are not reinvesting because they have got no incentive to as there is no demand, this is a way of encouraging firms to spend by creating demand in order to help them loosen up some of their reserves although this probably not the case for all employers because some firms will struggle'*.

In addition to the economic climate, respondents also raised concerns with respect to issues associated with transport in the city. Four employers indicated that public transport did not offer a realistic alternative to motoring for some of their staff in Nottingham because of the increased journey times for travelling to work by public transport compared to a car as well as the fact that many people very rarely travel directly to and from work. This is because C4 indicated that *'most people do something called blended journeys where they go to their place of work, then drive to somewhere to conduct some business, before later returning to work, and on their way home they will call in at the supermarket or pick up their children from school; so none of that can be achieved easily on public transport'*. It was also highlighted that some employees travel to work when there is not a regular public transport service which meant for some staff, there is little choice but to pay the levy. For example E3 stated that there are *'cases where people have to travel outside public transport hours which mean their staff will have no choice but to pay the levy ... [but] in the society we live today, everybody needs to have a choice'*.

In addition, six respondents highlighted that the cost of public transport is too expensive compared to driving which acts as a barrier preventing more people from changing how they travel. Indeed, one employer suggested that the cost of the WPL was not expensive enough to discourage people from driving as the cost of motoring, including the WPL, was cheaper than the price of public transport. For this reason, E2 stated that for *'the WPL to be more effective, the money people are paying would have to go up; if people are paying for the parking space themselves, £300 or whatever it is not enough to*

get you out of your car and on to public transport as driving is still cheaper and therefore you just pay it'. On this evidence, the cost of the WPL would need to be increased or the cost of public transport reduced in order to deliver a significant modal shift.

Further issues with transport were associated with displaced parking. This is because issues were raised with respect to safety, tension between residents and employers as well as a knock on effect over the city boundary. For example, E5 stated that teachers *'park on the road which is dangerous as there are children crossing'* and E4 stated that in one location *'people refuse to pay the levy and park in the local area which has led to eruptions between local residents and employers as residents were frightened the council would introduce parking restrictions or a permit surcharge'*. Moreover, C4 stated that they were concerned that the WPL *'would have a backlash against the County which it has, as people drive until they got to the edge of the city and they then abandon their cars wherever they can'*.

However, respondents from NCC indicated whilst some of the issues were overstated, they were aware of the concerns and had plans in place to manage the displaced parking. Indeed O9 stated that *'there are one or two pockets where displacement is perceived to be an issue and when we looked at them the perception is far greater than the reality but displaced parking was anticipated and has a resource attached to it'*. Moreover, C2 suggested that in some locations the WPL was shouldering the blame for issues associated with displaced parking although in many instances, the issues pre-existed the WPL.

The main concerns however, were raised by employers or organisations representing business. First, all nine employers indicated the administrative burden the WPL placed on business due to the increased workload of managing the charge as well as difficulties with passing it on to staff. This is because E4 indicated that *'we have staff that are ill, on holiday, out off-site, so I would probably say we are overpaying by about 25% but if you tried to do it to the optimum, you would blow any sort of savings with the cost of staff to calculate it so we pay it at the moment because if we passed it on it would be a nightmare as we have people that travel from Manchester and Newcastle and we feel they should be entitled to a space but it makes it difficult to draw the line as it would cause problems with staff and divide teams and we didn't want to do that; so we pay it'*.

With respect to how the cost is managed, three employers passed on the charge, three employers covered the levy and three employers employed alternative approaches. First, E8 stated that they reduced the number of parking spaces to ten to avoid the levy because it meant for *'three extra spaces, you would have to pay for 13 spaces which is unaffordable'*. E1 managed the cost by incorporating the

availability of parking spaces for staff into their bonus scheme which meant the financial bonus that the employees received would be reduced if the staff wanted a parking space. OT4 managed the cost by requiring staff to do 20 hours community/charity work if they did not want to pay the levy. Moreover, E2 indicated they were now charging spectators to use their parking for sports events in evenings and at weekends due to their proximity to the two football stadiums; this offset some of the WPL costs.

Despite this, other employers raised issues with the cost of the levy. This is because E6 indicated that employees are not guaranteed a parking space at their workplace if they do not arrive before a certain time, even if the employee had paid the levy. To this end, four employers highlighted that the WPL had created tensions between employers and employees due to disagreements with respect to how the charge should be managed as well as the enforcement of the parking at site. O9 stated that they were reluctant to pass on the cost as they felt it would affect attracting new educated talent to their workplace as well as the fact that they were required to make one employee redundant in order to be able to afford the cost of the levy.

These frustrations with respect to the cost of the levy were exacerbated by the fact some employers thought they were paying the levy but receiving nothing in return. For example E1 stated that it is *'just another tax on business that we have to pay and there will never be any advantages from the tram for us which is where the majority of the revenue is going'*. O10 however, indicated that these employers *'will benefit from improved public transport as well as a reduction in congestion'*.

Further concerns were raised with respect to how the exemptions work which meant staff or employers did not benefit from small changes with regards to how employees travelled to work. This is because three respondents highlighted that their staff would occasionally use alternative methods to travel to work, however the sunk cost of paying the levy meant there was little financial incentive to do so. For example, E6 stated that *'there is no benefit for car sharing or cycling because if you need to bring your own car on to the campus at any point during the year then you need to pay for a space'*.

Other employers raised issues based on incorrect information. For example E5 believed that the WPL was raising significantly less than was the case which meant that they had the view that the trouble of introducing such a scheme was not worth the reduced revenue. What's more, OT4 blamed the Government for NCC introducing the scheme as they indicated that the Government had backtracked over providing the revenue necessary for the tram which meant the Council then had to raise the money due to a commitment to Europe to build NET Phase Two. Whilst these views were incorrect,

they indicate that some stakeholders did not fully comprehend the reasons as well as the impact of the WPL which provides further support that NCC could have improved the communication. Despite these issues, OT3 indicated the communication would be improved by producing *'a brochure every year that shows you what the WPL has achieved, how much extra it has leveraged in and where it was spent'*.

The remaining concerns relate to the design and operation of the scheme and will address issues associated with exemptions, enforcement, the social impact as well as compliance. First, it was found that eight employers did not support the 100% discount for ten or fewer parking spaces when employers were required to pay for all spaces if they had eleven or more. Indeed E1 stated that *'the exemption for ten or less spaces is absolutely ludicrous in that if you have ten spaces there is no charge and eleven spaces means you pay for all eleven. Normally things are a sliding scale but this is sort of arbitrary, there must have been some logic behind it but I cannot understand it'*. These views were not exclusive to employers but were also shared by an NCC Councillor due to the perceived unfairness. For example C1 stated that whilst it is sensible to *'exempt very small businesses, there is a built in inequity that if you have eleven spaces you start paying and if you have ten you don't and so it is not graduated. [Therefore] I have got to say that I would have preferred that nobody paid for the first 10 spaces and then added the one extra afterwards ... I think it was for administrative purposes and it made it a lot cleaner and a lot easier but I think there is an inherent unfairness about that'*. Moreover, there was a further criticism on the basis that if it was a measure to reduce congestion then all cars at the workplace should be liable to levy as a vehicle travelling to a smaller car park contributes the same as a vehicle travelling to a larger car park. This is *'because even if you have fewer than 10 spaces, the vehicles using these spaces are still contributing to congestion'* (E4).

Similar views extended to the exemption for frontline services on the basis that all vehicles contribute to congestion and therefore should be liable. Despite this, the majority of the respondents [27] supported the 100% discount for frontline services on the basis that *'emergency services should definitely have an exemption because if they don't go to work then there are all sorts of consequences'* (E2). What's more it was also recognised that NCC *'were keen to avoid a whole raft of exemptions'* (E3) which led to view that NCC *'made it pretty fair by making it one scheme and system across the whole city'* (O9). A1 outlined that the decision to minimise exemptions was because of lessons from Perth with respect to the difficulties of creating exemptions and the consequences of receiving additional requests. It is worth highlighting at this point, that a "100% discount" was applied instead of an "exemption" from the charge because it was identified that if NCC wanted to later charge any of the groups initially exempted, it would be easier to do so with a "discount" (O3). This was a lesson learnt from correspondence with

stakeholders involved with introducing the London RUC as they had stated that exemptions were very difficult to change at a later date (A1).

Further concerns were highlighted with the enforcement of the scheme [4]. First, two employers indicated that it was difficult for NCC to enforce parking spaces rented out by employers because of the view that NCC either did not have the power to check the records or were unable to understand which vehicles belonged to employees in a shared car park. This argument was a further reason as to why A1 argued that the Perth scheme was simpler on the basis that their levy applied to all types of parking which meant they were not required to differentiate between workplace parking and other types. However, the same respondent also recognised that Perth were able to introduce their levy politically to cover all parking in the area as it only applied to the CBD unlike Nottingham where the charge is city wide. This is because A1 stated that levies that cover all types of parking in an area are only applicable when there is good public transport alternatives and parking is seen as an *'investment'*; that is when the *'benefits'* of supplying the parking (including the cost of the levy) outweigh the cost of supplying the space. Therefore it was indicated that for a citywide scheme with a set cost for a space was unlikely to work if it covered all spaces due to the differences in the cost of land.

The second enforcement issue was due to privacy concerns in terms of whether it was legal for NCC to use cameras on an enforcement vehicle and then match the number plate with the owner using the DVLA (Driver and Vehicle Licensing Agency) database. Despite these concerns, respondents from NCC stated that enforcement was working well and although *'employers will always probably remain hostile towards the levy as they would rather pay less tax, we have 100% compliance'* (C2).

The final concern was the social impact of the WPL. This was because of the view that if the cost was passed on, the additional cost would be unaffordable to some people and effectively equate to a pay cut during an already difficult financial time. This is because E4 stated that *'it is very difficult to charge an employee when they have not received a pay increase which therefore means they are taking a pay cut when we pass on the charge'*. There were also issues raised with the security of public transport as OT4 stated that *'late at night there is no patrolling and there just lighting and CCTV footage; the problem is however a CCTV camera will not protect somebody from being attacked'*.

This section has presented some of the issues associated with the introduction of the WPL in Nottingham. First, whilst an additional cost was seen by some as an issue, many of the respondents were pragmatic that the scheme had been in the planning a long time and that introducing a WPL

actually had some benefits. Second, whilst some employers felt they were not benefiting from the WPL as they were not served by NET Phase Two, NCC indicated these employers would benefit from reduced congestion and improved bus services. Despite this, in some instances it was found that if employees travel at anti-social hours, there was little choice but to drive and pay the levy if the charge was passed on. Third, whilst there was a general agreement for a discount for emergency services, concerns were raised that if it was a congestion reduction measure then all spaces should be liable and that discounting businesses with ten or less spaces but charging employers for all the spaces if they had eleven or more, was seen to be unfair. Despite this, lessons were learnt from Perth and London such as applying a “100% discount” because of lessons learnt from the London RUC scheme.

7.6 The impact of the Nottingham WPL

This section will address the views of the respondents with respect to the short term as well as anticipated long term impact of the WPL in Nottingham. This is important as NCC was the first authority to introduce a WPL and it has been identified that there is significant interest from Government as to the impact and evaluation of the Nottingham scheme. However, the formal evaluation will not take place before the 2016/17 financial year at the earliest and therefore this section has provided the preliminary views of key stakeholders in Nottingham. Figure 7.4 provides an overview of the respondent's views.

Figure 7.4 - Short term and anticipated long term impact of the WPL in Nottingham

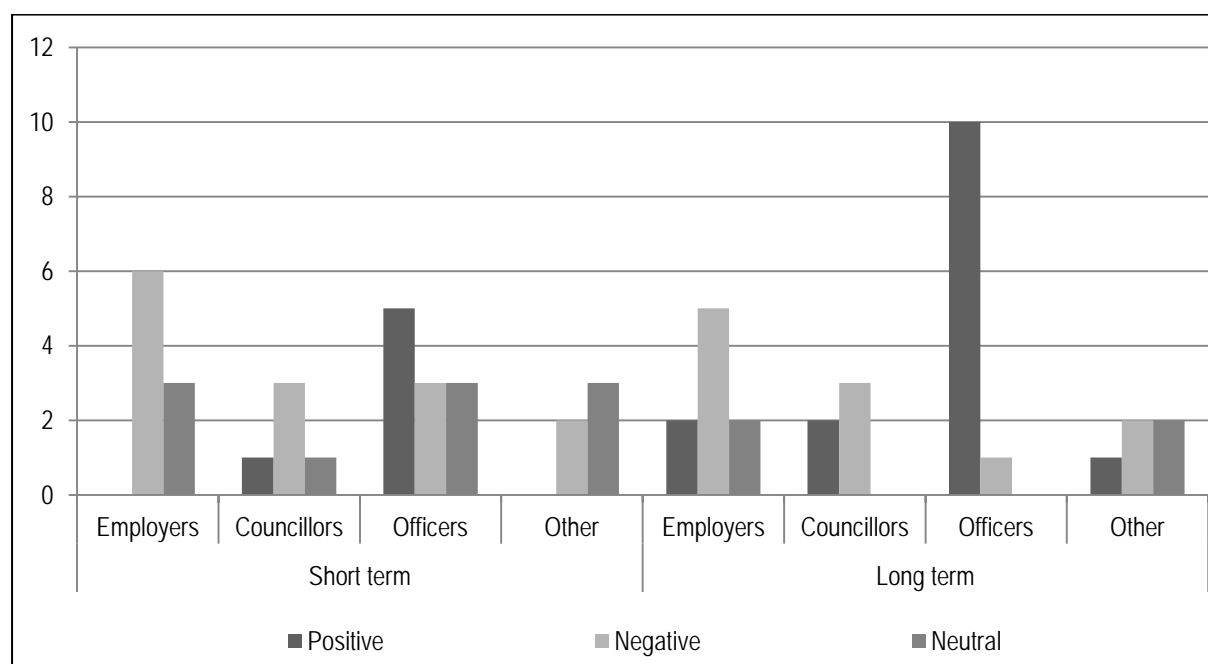


Figure 2 illustrates how the respondents believe the short impact of the WPL was more negative than the anticipated long term impact. This is because nearly half of the respondents thought that in the short term, the WPL would have a negative impact [14]; ten respondents thought the impact would be neutral which meant only six respondents had a positive view. However half of the respondents [15], including three employers, thought the WPL would have a positive impact in the long term with only ten respondents having a negative view. The reason for these views will now be discussed.

7.6.1 Short Term Impact

As previously described, 24 respondents thought the WPL had a negative impact in Nottingham in the short term. This was primarily because of a perceived negative impact on economic activity [10] associated with a loss of jobs and impact on new businesses moving in and existing business moving out. Despite this, with the exception of one redundancy, there is little evidence for these views which meant O9 stated *'there were certain threats around the implementation of the WPL that our major employers would move out of the city but none of that has materialised and so the threats we have are more about managing perceptions than they are the reality'*. Indeed, C2 indicated that five businesses had moved into the city, including one which created 600 jobs, despite the levy being in place. Moreover, although it was identified that one business had left the city, C2 stated that the WPL was not a factor influencing this decision.

Negative views were also generated because of the knock-on effects caused by the introduction of the WPL [6]. This was because of parking being displaced into neighbouring authorities; worsened congestion; as well as poor morale in the office caused by the increased cost or because of difficulties associated with staff finding parking for the instances where employers had reduced the number of spaces. This is because E2 indicated that in the short term all the WPL had done was lead to an additional cost and *'cause congestion due to the installation works of the tram'*.

It was also viewed negatively as the WPL was viewed as an administrative burden for employers [3]. As previously highlighted, this burden was primarily associated with businesses although one NCC officer highlighted an increased workload in their role of managing displaced parking. This is because O7 stated that *'traffic management wise we have 35 schemes on our books that weren't there before the WPL. However it is not the case that you had a blank canvas and suddenly you have got 50 cars parked on it, it is perhaps you are looking at areas where commuter parking has been a small issue for years and although you might be able to accommodate 10 cars on a street for example, if you were to*

add one or two more cars it then becomes a problem. So in many cases it is an existing problem that has been exacerbated'.

There was also a short term concern in that the first year revenue was less than expected. This is because O4 stated that *'there is less raised than one had initially thought which is because of the economic climate which has meant employers aren't licencing as many spaces as we thought, however over the longest time frame these things will average out and the system is designed to factor that in'.*

In addition to these negative views, ten respondents were either unsure [2] or thought the WPL had had very little impact [8] on the status quo in the short term. A flavour of these neutral views with respect to the short term impact of the WPL were *'business as normal'* (E2); *'very little impact'* (C1); and *'it has not been long enough for there to be any evidence and therefore it would just be speculation'* (E1).

The final view with respect to the short term impact was that six respondents thought the impact of the WPL in the short term was positive. These views were confined to respondents from NCC and the most popular response was because of an increase in public transport usage [4] as well as a greater awareness from employers of how their employees travel to work which has led to the implementation of parking management strategies [4]. This is because O9 stated that *'the short term impact has been an increase in the use of public transport'*, whilst O8 stated that *'there is now a greater consciousness about travel amongst the business community'* which has led to *'over a third of chargeable spaces being covered by a parking levy or management scheme'* (O4).

Three respondents also raised the benefits of the revenue used to deliver short term benefits through investments into the tram, green buses; the refurbishment of the railway station as well as the creation of jobs. As C2 stated, *'the short-term impact has been getting the tram built as we have got £500 million worth of investment from central Government in addition to our contribution which has resulted in hundreds of people getting jobs and £12 million worth of contracts for firms in our local area which we would not have had without WPL. That is a really significant short-term impact which is positive for local firms and businesses'.*

7.6.2 Long Term Impact

This section covers the views of the respondents with respect to the anticipated long term impact of the WPL in Nottingham. A third of the respondents [10] had the view that the WPL would have a negative

long term impact because it will lead to an economic decline in the city [8]; it delivers an anti-business message to potential investors [2] and that transport would worsen in the city [3].

Eight respondents thought it would lead to an economic decline in Nottingham because of a perceived negative impact on business. For example O11 stated that *'in the medium to long term, the WPL will have a serious negative impact on the city as an economic location for businesses to grow and locate. If all the other core cities had plans it wouldn't be such a bad situation, but because we are the only city in the whole country that places this additional burden on business then this puts us at a business disadvantage as it does not place us in a competitive market'*.

In addition, two respondents further highlighted that they thought the WPL sent out an anti-business message due to the increased business cost which meant business would be put off from moving to Nottingham. This was made clear by OT1 as they stated that they were worried *'about the message it sends out in that Nottingham isn't open to business. This is because we need private sector investment and to encourage overseas businesses to see Nottingham as a positive place to invest and the message it sends out is a real worry because I think people pick up on negatives more easily than positives and the WPL will stand out. Therefore I think we have got a real job to do in terms of letting businesses know there is a lot to gain from investing here'*. OT2 also indicated that as they have offices nationwide, they would be reluctant to expand at their *'office in Nottingham because the WPL makes it more expensive; therefore the WPL may not be a problem today, and may not be a problem tomorrow, but in four or five years' time, it could become a very significant problem'*. Despite this, A1 indicated that similar views were cited in Perth with respect to businesses leaving however suggested that although their scheme had been operational for over a decade, this fear had not materialised. This was identified to have provided senior figures within NCC some comfort when introducing the scheme.

The final reason for the negative long term view was because it was stated that transport would be worse [2] because car use is likely to increase *'in the long term as businesses move out of the city to avoid the charge which will make transport even more difficult and lead to an even greater increase in car use'* (E5). In addition, there was also the view that the tram is unlikely to ever be profitable due to the high implementation costs and because it was perceived to *'have a negative effect on traffic flows once it is in operation'* (E8) as it will share road space with vehicles in some locations.

Similar to the views with respect to the short term impact, five respondents had a neutral view as to what the long term impact of the WPL would be. The first reason was because it was difficult to predict

the impact [5] and therefore the respondent was unsure. This was primarily because the respondents thought the impact would be dependent on whether other authorities adopt a WPL on the basis that if other cities adopt the scheme, it would reduce the business disadvantage and would instead be a benefit as NCC would have delivered public transport improvements sooner than their competitors. The second reason was the view that the WPL would have very little impact [4] and that it would just become a part of being in Nottingham as the cost is not significant enough to impact congestion. This is because O4 stated that in *'the longer term it is just going to be something that is accepted as a way of life in the same way that people just factor in with the congestion charge in London when they go there'*.

The most popular response was that the WPL in Nottingham would have a positive long term impact [15]. This view was shared by two employers and was because of the view that the WPL would lead to economic prosperity [14]; improved public transport [6]; reduced congestion [5] as well as an environmental improvement [1]. These benefits were described by E7 as they stated that the tram is likely to be a great benefit due to their location not only as a transport link but also as a regeneration project for the area. The same employer also stated businesses looking to invest into the city *'will wait for the public transport improvements to be realised before investing in Nottingham. However I expect to see a small drop in investment in the short term but longer term I expect lots of investment because the improvements from the WPL will heavily outweigh the negative'*.

O8 further indicated that *'the fact you've got a tram and excellent public transport and lots of other things will mean that it is an attractive place to come and work, invest and live. The WPL will just be a small thing and you will have a lovely city centre and trams and Nottingham will be a nice place to live, work and to be. It will be a modern city and it will be bringing it up-to-date and competing in Europe; so hopefully advantageous in the long run'* (O8). This view of competing in Europe was raised by four respondents from NCC and indicated a desire to have a cafe culture and be similar to other European cities with a tram network.

O1 however recognised the other transport improvements the WPL was delivering as they stated that in addition to the tram, *'we have fantastic sustainable buses and we are going to have a brand new train station which will mean we have delivered two out of the three business priorities [tram and railway station] in Nottingham because we were brave enough to do the levy'*. Moreover, these improvements were in addition to *'a reduction in the amount of vehicles travelling in during the peak periods'* and although it may be not be an absolute reduction, it was stated that Nottingham will not experience a growth in congestion as fast as other locations which will make local transport even better (O7).

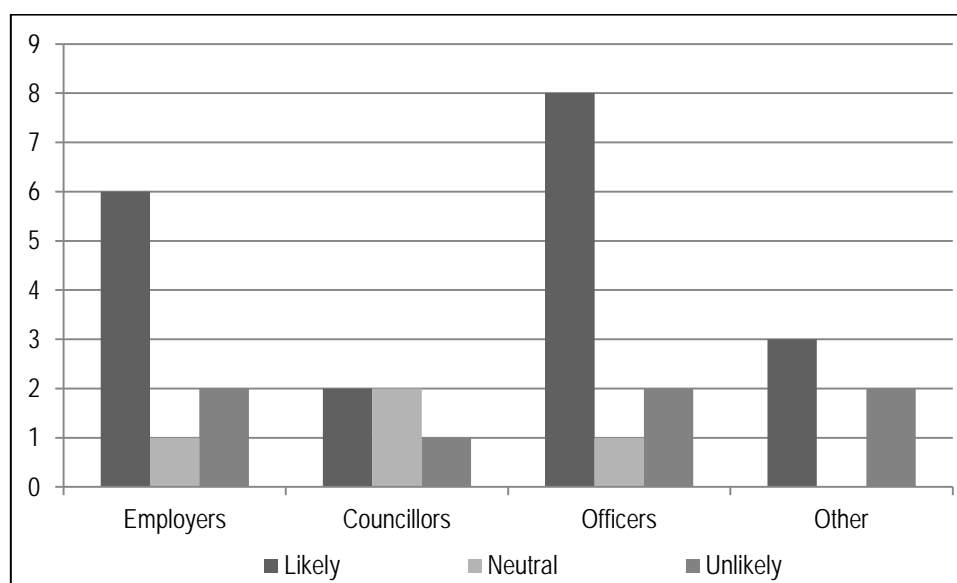
Finally, OT3 stated that whilst business may publicly criticise the WPL, quietly they support it as it *'allows businesses to use the WPL as an opportunity to encourage staff to use public transport, cycling, walking and charge for parking rather than building lots of car parking spaces'* without appearing unreasonable with their staff. This view was supported by one employer as they agreed that they were able to use the WPL to introduce parking charges and change travel behaviour (E7). This was seen to be positive to the city as all these improvements would deliver an environmental benefit (O10).

In summary, this section has illustrated that the short term impact was generally viewed to be negative whilst the long term impact was viewed to be more positive. The negative short term view was based on the fact that there are a lot of the issues associated with the WPL without any of the benefits; this includes an extra cost, administrative burden and increased traffic congestion due to the installation works associated with the tram. Despite this, in the short term it was suggested there had been an increase in public transport use, businesses were managing how their staff travelled to work and the WPL revenue was delivering major investment which created jobs during an economic downturn. In the longer term, the WPL was viewed more positively even amongst employers and was because the WPL package of improvements would address some of the problems associated with congestion and provide investment to help the city prosper. Moreover, this would help NCC respondents achieve a vision to become like other European cities with light rail transit. Despite this, there were concerns that it would affect business investment due to the view that the WPL sent out an anti-business message although these issues had not materialised in Perth.

7.7 The likelihood of another Local Authority introducing a WPL

The final section addresses the views of the respondents with respect to whether they thought other UK authorities would introduce a WPL. The findings indicated that nearly two thirds of the respondents thought other authorities would introduce WPL [19]; seven suggested further schemes were unlikely whilst four were unsure. The number of responses from each stakeholder groups is presented in Figure 7.5 and illustrates that the majority of the respondents indicated that other local authorities are likely to introduce a WPL with the exception of politicians.

Figure 7.5 – The likelihood of another local authority introducing a WPL



The primary reason why further schemes are unlikely was because of a perceived negative impact of the scheme in Nottingham [4]. For example, C4 stated that although there is only anecdotal evidence at the moment, *'I think that very few cities will sign up because they will eventually see the negatives the WPL has had on Nottingham which will make other authorities reluctant to introduce a WPL'*.

The second reason was because of political difficulties of introducing a controversial scheme [3]. This is because O9 indicated that they had *'worked in other cities where there is not such a clear political mandate or political leadership or political majority and therefore I just don't think others will have the political strength'*. C2 also stated that *'one of the reasons we [NCC] were able to bring it in is because we have had long-term political stability. So we have had the same political control on the city for many years and it has been absolutely out there and clear that this is what we going to do for 13 years and that has not been destabilised by successive elections where as other cities tend not to have that stability and some of them have more problematic electoral cycles like elections every third which mean there are elections every year or three years out of four which sometimes make it harder to do that long term thinking. So I think various cities talk about it from time to time but then face the political problems that we have not had because we have had stability'*.

The third reason was because of the fact that other authorities had already rejected the WPL to date [2]. For example OT2 stated that *'it is very interesting that nobody else has actually looked at this as an intervention at all and so I think it is unlikely'*.

Four respondents stated that they were unsure. This was because it was dependent on the evaluation of the Nottingham scheme [3]; the political strength of other local authorities [2]; as well as which party is in power in central government [1]. This was summarised by O3 as it was stated that *'I think they are all waiting to see what happens in Nottingham and so the outcome after 4 or 5 years will be pivotal. So first, the WPL needs to be proven as a successful method in Nottingham and that inward investment is definitely not affected and the evidence is independent and verifiable. The evaluation also needs to prove there is a reduction in congestion and that Nottingham is outperforming other cities economically which are the practical questions of does it work in peoples mind. You have then to look at political climate; if the politicians feel secure and are backed by central Government, they will then feel more confident and are then more likely to introduce a WPL'*.

The most popular response however, was that other authorities would follow Nottingham in introducing a WPL [19]. The reasons for this view were linked to the reasons why the respondents thought the WPL was introduced in Nottingham and include to raise revenue [15], to reduce congestion [14] and for environmental reasons [7]. For example, O1 stated that *'Government funding is reducing year on year which means local authorities have less money to deliver more because standards for local authorities are going up. Therefore as we are generating revenue based on administration, there is the market to sell this to another local authority to help them join us in trying to improve public transport and there probably will never be a better time. Therefore I think it is very likely that other authorities will introduce a WPL although it can help politicians if there is a major deliverable like we had with the tram'*. This view therefore indicates that NCC had the view that they would market the WPL to other interested authorities to encourage other Councils to adopt the scheme.

It was also suggested that there was a reluctance to be the 'first' authority to introduce a WPL and therefore now that Nottingham had introduced the scheme the risk has been reduced. O6 illustrated this point as they stated that other authorities will introduce a WPL *'as they can do it without taking any risks as we have done all the work for the DfT and we have drafted the national legislation and regulations so that it is vague enough so that it could be applicable in terms of the design for other local authorities and I bet that other cities will introduce it'*. Moreover, A1 stated that a WPL is more acceptable if it delivers a major investment into the city which is also likely to require Government funding. For this reason, A1 stated that it is likely that further WPL schemes will be introduced on the basis that if other local authorities want funding, Government are likely to request that local authorities generate their own local revenue which NCC have now proved can be attained by introducing a WPL.

The final view was that the WPL would only be introduced in the medium to long term [2]. This was because O7 suggested that *'although local authorities may not introduce a WPL in the current economic climate, I think eventually it will be introduced because there is no argument that traffic levels are increasing nationally and there are growing issues with the environment which means that something has to be done and I think the WPL is the answer'*. O1 supported this view as it was stated that *'I don't think it will happen quickly, but I think other local authorities will gradually come, but only if it suits them. You have got to have congestion, and it has got to be about commuters, and commuters have got to park in your area, you need strong political stability, a logical geographical area that you can charge in, wary of what competition exists and how easy it is for businesses to do business in that competition, and you have just got to have a firm business case'*.

In summary, nearly two thirds of the respondents thought other authorities in the UK would introduce a WPL due to the reduced risk of no longer being the "first", because of issues associated with constrained budgets and the availability of the revenue, the greater concerns for the environment and the forecasted worsening of congestion. Despite this, it was expected that schemes would only be introduced in the medium to longer term because of the need for political stability and a desire for other authorities to have evidence of the impacts of the WPL in Nottingham via a formal and independent evaluation.

7.8 Chapter Summary

This chapter has therefore provided the views of key stakeholder with respect to the introduction of the WPL in Nottingham. First, it illustrated that there was a consensus that congestion was a problem in Nottingham. It then described how the majority of the respondents thought the WPL was introduced to raise revenue to fund NET Phase Two, with NCC Officers recognising the multiple areas in which the WPL would deliver benefits. In addition to this, the view of NCC with respect to the importance of having a good transport system to facilitate economic growth was then emphasised as well as the political benefits of the WPL in terms of many of those affected by a WPL residing outside the administrative area. The difficulties and issues associated with design, implementation and operation of the WPL were then covered and included exemptions, enforcement, displaced parking and the use of the revenue. For support in managing these issues, this chapter has outlined the financial support received from the DfT as well as the importance of lessons from Australia particularly with convincing senior politicians and officers that the WPL was the correct measure for Nottingham. Another area of

transfer was also highlighted in that Nottingham had a vision to be similar to European cities with tram networks.

The importance of the WPL being viewed as a measure for the long term was then emphasised as the majority of the respondents indicated that the short term impact was negative whilst the longer term impact of the scheme would be more positive. This therefore outlined the political difficulties of introducing such a scheme as politicians are unlikely to experience the benefits of the scheme in a single term of office; this was the primary reason as to why the respondents thought other authorities would not introduce a WPL. However, nearly two thirds of the interviewees stated that they thought other authorities would be likely to introduce a WPL in the future on the basis that issues with congestion and the environment are ever increasing as well as because of the reduced risk associated with introducing the scheme as they would no longer be the “first” which also means they can receive support from NCC. In addition, whilst some respondents thought it was unlikely others would adopt a WPL due to a perceived negative impact of the scheme in Nottingham, much of the claims with respect to the negative business impact are thought to be anecdotal as there is little evidence to support the claims and the absence of this impact in Perth. The next chapter will present the results of the National survey.

Chapter Eight: Local Authorities and the Workplace Parking Levy

8.1 Introduction

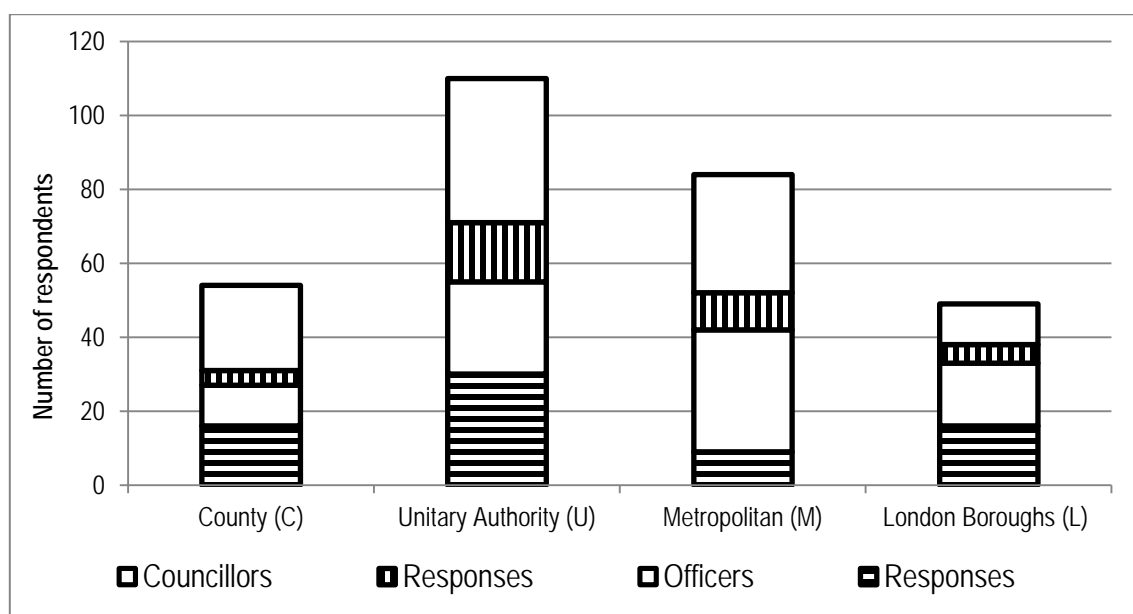
Chapter 7 outlined the reasons why NCC introduced a WPL and the issues they encountered during and following the introduction of the scheme. The next part of this thesis is to understand the perspectives of other local authorities with respect to transport related issues and more specifically their views with respect to the WPL. Thus, research objective 4 is '*to examine the perspectives of key actors relating to the WPL in the UK*'.

Accordingly this chapter presents the results of a national survey of all local authorities in England with the power to introduce a WPL (excluding NCC). The method employed is explained in 4.6.3. The chapter begins by examining who the respondents were and the proportion of respondents from each type of authority. This will be followed by the presentation of the results which will include the views of the respondents with respect to the seriousness and importance of various transport problems (section 8.2). It continues with the presentation of the effectiveness and acceptability of various approaches that local authorities can adopt for tackling congestion (section 8.3). The remainder of the chapter will focus specifically on the WPL and will address the reasons why other authorities may, or may not, introduce a WPL (section 8.4); the views of stakeholders with respect to issues raised from the Nottingham Case Study surrounding the WPL (section 8.5); the influence of other local authorities with respect to introducing a WPL (section 8.6) as well as the likelihood of another local authority introducing a WPL in the UK (section 8.7). Finally, a binary logistic regression model was developed to identify the most influential factors affecting a local authority's decision on whether a WPL should be introduced (section 8.8).

One Transport Officer and Transport Councillor from the 156 local authorities were contacted and requested to complete a short web based survey. There were 133 usable responses which equated to a response rate of 43%. Fifteen of these however did not answer the sections on the WPL which meant there were 118 complete responses (38% response rate). Figure 8.1 identifies the type of authorities

that responded as well as their role within the council against the total number of respondents for each group. Figure 8.1 also highlights how the authorities will be referred to in this chapter; Unitary (U), County (C), Metropolitan (M) and London Borough (LB). In addition to these categories, Not Specified (NS) will indicate the authorities that wished to remain anonymous and Total (T) will present the average response from all of the respondents.

Figure 8.1 – Type of authority and role of respondents



Base: 106 respondents

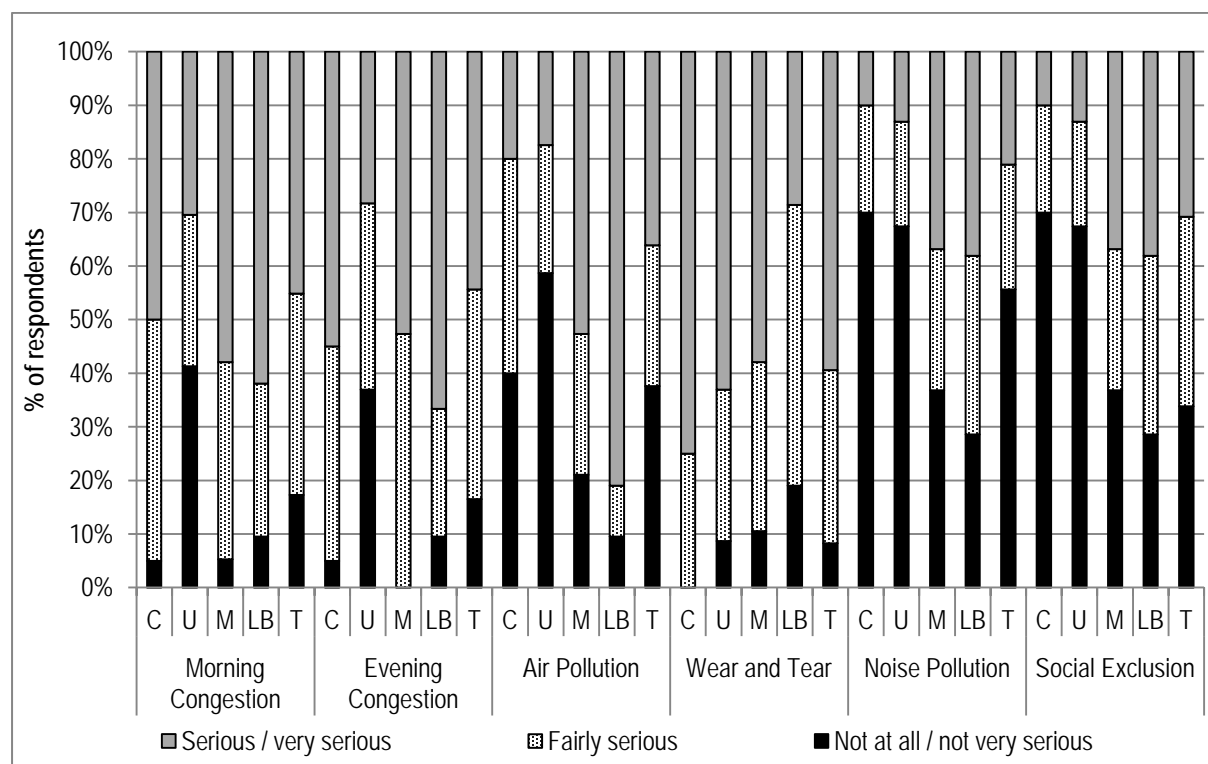
The total number of respondents in Figure 8.1 is 106. This is because 27 out of the 133 respondents chose to remain anonymous with respect to the authority they represented as well as their role. Figure 8.1 indicates that there were 36 responses from Councillors (22% of total sample) and 71 responses from Officers (46% of total sample). The group with the lowest response was Councillors of County Councils where only 15% of the councillors contacted provided a usable response. The group with highest response (59%) were Officers from County Councils.

8.2 Transport Related Issues

The views of Councillors and Officers within local authorities with respect to various transport issues were ascertained as part of the survey in order to understand the seriousness of specific transport issues. The reason for ascertaining this information was to understand if a problem is deemed to be significant enough to warrant the introduction of a new policy. Figure 8.2 presents the views of the

stakeholders based on the type of authority they represent and how serious they rate six local transport issues.

Figure 8.2 –Type of authority: Transport related issues



Base: 133 responses

Collectively, the respondents identified wear and tear of the road network as the most serious transport related issue as nearly 60% viewed it as either *serious* or *very serious*. This was followed by morning congestion (45% viewed it as *serious* or *very serious*), evening congestion (44%), air pollution (36%), social exclusion (31%) and noise pollution (21%). Although less than half of the respondents stated that congestion was *serious* or *very serious*, less than 10% of the respondents from County Councils, Metropolitan Councils and London Boroughs stated congestion was *not at all* or *not very serious*.

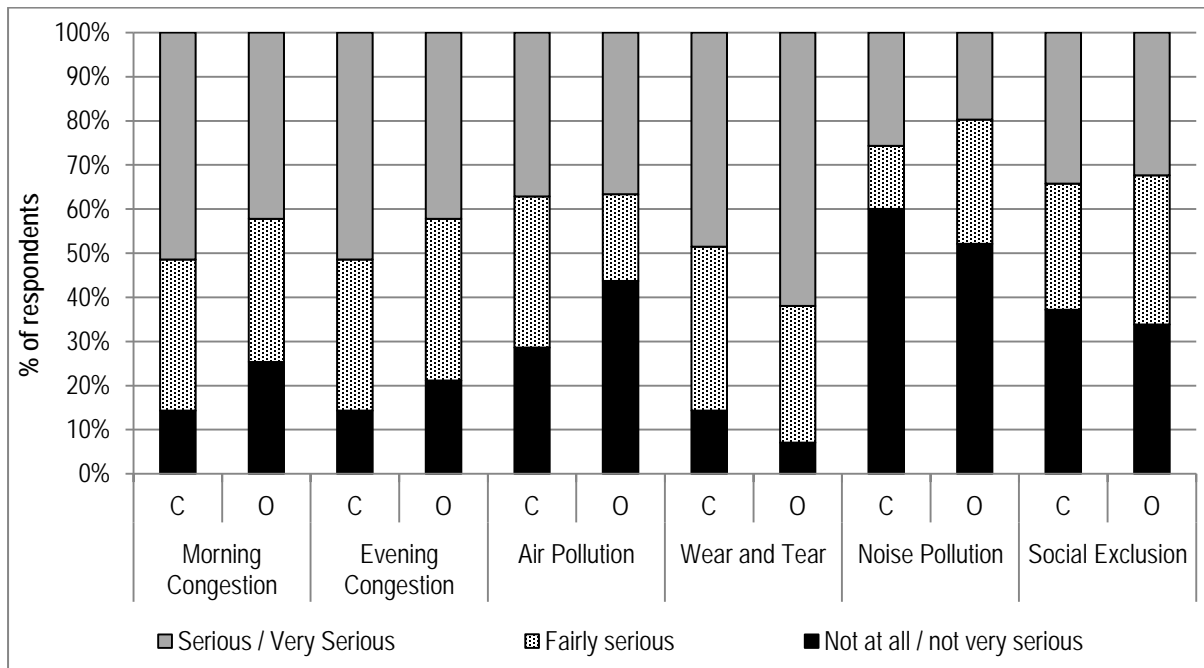
Respondents from London Boroughs highlighted congestion to be the most serious out of all the authorities as approximately two thirds of the respondents rated congestion as *serious* or *very serious*. Despite the rural nature of County Councils, congestion in these areas was deemed to be more *serious* than the average with congestion being perceived as the least serious in Unitary Authorities as only 30% of the respondents viewed congestion as *serious* or *very serious*. With respect to comparing morning congestion with evening congestion, the results identified only small differences. Metropolitan areas

perceived morning congestion to be slightly more serious whilst London Boroughs and County Councils viewed morning congestion to be slightly less serious.

Only 8% of authorities stated that wear and tear of the road network was either *not very serious* or *not at all serious*, making it the most serious issue for UK authorities. What's more the more rural the authority, the more serious the wear and tear issue was considered to be. Hence County Councils viewed it as the most significant issue (75%) and London Boroughs the least (29%). The most serious individual issue was air pollution for respondents from London Boroughs. Unitary and County authorities (more rural authorities) viewed problems associated with air pollution and noise pollution caused by transport as well as social exclusion as less of an issue compared to Metropolitan areas and London Boroughs. This is because only 10% of County Council respondents perceived social exclusion (number of households without a car, lack of access to public transport and crime on public transport) as *serious* or *very serious* compared with 38% for London Boroughs and 37% for Metropolitan areas.

Further analysis was undertaken to compare the views of Councillors and Officers with respect to the transport related issues (Figure 8.3). The results suggested that Councillors perceived congestion, air pollution and noise pollution to be slightly more of an issue in comparison with Officers whereas Officers perceived wear and tear of the road network to be more of a concern. The views with regard to the seriousness of social exclusion are very similar. Despite these differences, where identifiable, there were only two councils where both an Officer and Councillor responded from the same authority. For this reason, the small differences could be explained by the responses being obtained from different locations as opposed to a difference in opinion between Councillors and Officers of the same authority.

Figure 8.3 – Role of respondent: Transport related issues



Base: 133 respondents

Following the analysis of how serious key stakeholders within local authorities view various transport issues, the next section is focused on the importance of having good transport in a local authority. This covered a reliable road network, reliable public transport, good access to national road and rail links, safe and efficient cycling routes and encouraging travellers to use more sustainable methods for travelling to work. Table 8.1 highlights the importance of having good transport as all five areas were deemed either *important* or *very important* by at least 85% of the respondents and no more than 7% of the respondents from any type of authority viewed any of the areas as *unimportant* or *very unimportant*. The least important area was with respect to encouraging travellers to use more sustainable methods for travelling to work although 86% still viewed this as *important* or *very important*.

The more rural the type of authority the more important good access to national road and rail networks was perceived to be as all respondents from County Councils viewed it as *important* or *very important* whilst only 86% of respondents had this view from London Boroughs. The opposite was true for safe and efficient cycling and walking routes as the more urban an authority the more important it was perceived to be. All respondents from the London Boroughs stated that reliable public transport as well as safe and efficient cycling and walking routes were either important or very important which indicates the importance of alternative methods for travelling in London as opposed to the car.

The least important area of transport based on the type of authority was encouraging travellers to use more sustainable methods for travelling to work as only 80% of respondents from County Councils and 79% of Metropolitan deemed it to be *important or very important*.

Table 8.1 – Type of authority: Importance of various transport areas (% of respondents)

Importance of	Response	County	Unitary	Metropolitan	London Borough	Total	Mean Value
Efficient and reliable road network	Important / Very Important	100	93	95	90	95	4.56
	Neither important nor unimportant	0	4	0	5	2	
	Unimportant / Very Unimportant	0	2	5	5	3	
Efficient and reliable public transport	Important / Very Important	95	96	95	100	95	4.52
	Neither important nor unimportant	5	2	0	0	2	
	Unimportant / Very Unimportant	0	2	5	0	3	
Good access to national road and rail	Important / Very Important	100	96	95	86	95	4.41
	Neither important nor unimportant	0	2	0	14	3	
	Unimportant / Very Unimportant	0	2	5	0	2	
Safe and efficient cycling and walking routes	Important / Very Important	85	91	95	100	91	4.37
	Neither important nor unimportant	15	2	0	0	5	
	Unimportant / Very Unimportant	0	7	5	0	5	
Reliable journey times for all modes	Important / Very Important	95	96	95	95	94	4.34
	Neither important nor unimportant	5	2	0	5	4	
	Unimportant / Very Unimportant	0	2	5	0	2	
Encouraging travellers to use more sustainable methods	Important / Very Important	80	91	79	90	86	4.26
	Neither important nor unimportant	20	7	16	5	10	
	Unimportant / Very Unimportant	0	2	5	5	5	

Base: 133 respondents (Mean value – 5 = very important and 1 = very unimportant)

NB. Percentages may not add up to 100 due to rounding

The views based on the role of the respondents with respect to the importance of the different areas were also analysed (Table 8.2). In general, it was found that Councillors viewed the importance of transport as slightly less important in comparison to Officers as is the case for an efficient and reliable road network, efficient and reliable public transport, safe and efficient cycling and walking, reliable journey times as well as promoting sustainable methods. Despite these differences, the variation in opinion was minimal as a large majority of respondents from both roles viewed all transport areas to be either important or very important.

Table 8.2 – Role of respondent: Importance of various transport areas (% of respondents)

Importance of	Response	Councillor	Officer
Efficient and reliable road network	Important / Very Important	89	97
	Neither important nor unimportant	3	3
	Unimportant / Very Unimportant	9	0
Efficient and reliable public transport	Important / Very Important	94	97
	Neither important nor unimportant	0	3
	Unimportant / Very Unimportant	6	0
Good access to national road and rail	Important / Very Important	94	94
	Neither important nor unimportant	0	6
	Unimportant / Very Unimportant	6	0
Safe and efficient cycling and walking routes	Important / Very Important	89	94
	Neither important nor unimportant	3	4
	Unimportant / Very Unimportant	9	1
Reliable journey times for all modes	Important / Very Important	91	97
	Neither important nor unimportant	3	3
	Unimportant / Very Unimportant	6	0
Encouraging travellers to use more sustainable methods	Important / Very Important	77	92
	Neither important nor unimportant	14	9
	Unimportant / Very Unimportant	9	0

Base: 133 respondents

NB. Percentages may not add up to 100 due to rounding

In summary, this section has highlighted that good transport is viewed as important by the majority of local authorities as a low proportion of respondents stated the various areas were either *unimportant* or *very unimportant*. Although just under half of the respondents stated that congestion was *serious* or *very serious*, less than 10% of the respondents from County Councils, Metropolitan Councils and London Boroughs stated congestion was *not at all* or *not very serious*. What's more, less than 20% of the respondents from Unitary and County authorities see air pollution, noise pollution or social exclusion as *serious* or *very serious* whilst Metropolitan areas and London boroughs tended to view all the transport related issues as the most serious with wear and tear of the road network the only exception. Wear and tear on the road network however, was collectively the most serious issue.

8.3 The Effectiveness and Acceptability of Measures to Reduce Congestion

In the previous section, it was identified that congestion was the second most *serious* transport issue. For this reason, the views of the stakeholders with respect to the effectiveness and acceptability of

various measures for managing congestion were collected (Table 8.3). These views are important in order to understand the likelihood of local authorities introducing each measure based on the effectiveness and acceptability for addressing congestion. Table 8.3 and 8.4 compare the effectiveness and acceptability of the policies based on the type of authority whilst table 8.5 presents the differences in views between Councillors and Officers. The policies in tables 8.3 and 8.4 are ranked from the most effective/acceptable to the least effective/acceptable based on the mean value of the results.

Table 8.3 –Type of authority: Effectiveness of policy measures for addressing congestion (% of respondents)

Policy Measure	Response	County	Unitary	Metropolitan	London Borough	Total	Mean Value
Frequency and Reliability PT	Effective / Very Effective	80	78	89	100	83	4.11
	Ineffective / Very Ineffective	10	4	5	0	5	
Reduce cost of PT	Effective / Very Effective	70	78	79	100	77	4.03
	Ineffective / Very Ineffective	10	7	5	0	8	
Improve Local Railway	Effective / Very Effective	75	65	89	76	72	3.92
	Ineffective / Very Ineffective	15	11	11	10	11	
Improve Cycling and Walking	Effective / Very Effective	50	72	68	90	68	3.68
	Ineffective / Very Ineffective	30	11	16	0	14	
Home Working	Effective / Very Effective	40	63	47	81	59	3.58
	Ineffective / Very Ineffective	5	13	11	10	11	
Introduce RUC	Effective / Very Effective	65	54	47	86	60	3.53
	Ineffective / Very Ineffective	15	22	26	14	21	
Park and Ride	Effective / Very Effective	70	63	84	33	65	3.51
	Ineffective / Very Ineffective	10	15	11	33	17	
Road Expansion	Effective / Very Effective	65	63	68	29	59	3.47
	Ineffective / Very Ineffective	15	17	11	43	19	
Car sharing	Effective / Very Effective	55	48	37	57	52	3.38
	Ineffective / Very Ineffective	20	20	21	19	19	
Increase parking charges	Effective / Very Effective	55	50	42	52	48	3.30
	Ineffective / Very Ineffective	15	26	26	24	24	
Reduce Supply Parking	Effective / Very Effective	55	30	53	62	44	3.20
	Ineffective / Very Ineffective	30	41	37	24	32	
Introduce WPL	Effective / Very Effective	40	33	42	67	40	3.17
	Ineffective / Very Ineffective	40	33	26	14	27	

Base: 133 responses (Mean value – 5 = very effective and 1 = very ineffective)

NB. Percentages may not add up to 100 due to rounding

The measures which were seen to be the most effective for reducing congestion were policies which improved the alternative methods for travelling as opposed to the private car. This included improving public transport by reducing the passenger cost as well as more frequent and reliable services; improving local railway services; and improving cycling and pedestrian routes. The least effective schemes were all parking related and included the introduction of a WPL; reduction in parking supply; and an increase in parking charges. Incidentally, the WPL was deemed the least effective measure for dealing with congestion out of the policy options provided.

Despite parking measures being viewed as the least effective measures, a greater proportion of respondents believed they were an effective measure for tackling congestion than ineffective. This suggests that whilst parking measures are not perceived as a first best solution, the benefits of such policies are still recognised by some. In particular, respondents from London Boroughs recognised the effectiveness of parking policies more than other types of authority, particularly a WPL (67%).

London Boroughs had the greatest variation in their views compared with the other authorities as these respondents stated that park-and-ride and expanding the road network are ineffective measures for reducing congestion whereas the other types of authorities tended to view these policies as effective.

In addition, the more urban the type of authority the more effective a reduction in the cost of public transport was perceived to be particularly in London Boroughs as all of the respondents perceived this measure to be *effective* or *very effective* for reducing congestion. In general, urban authorities tended to view improving the frequency and reliability of public transport as more effective. The final significant finding is that Metropolitan areas viewed a RUC as the least effective measure for reducing congestion compared with the other types of authority.

Table 8.4 outlines the acceptability of the same measures and are presented from the most to the least acceptable based on the mean.

Table 8.4 – Type of authority: Acceptability of policy measures for addressing congestion (% of respondents)

Policy Measure	Response	County	Unitary	Metropolitan	London Borough	Total	Mean Value
Frequency and Reliability PT	Acceptable / Very Acceptable	90	96	95	100	94	4.55
	Unacceptable / Very Unacceptable	0	4	0	0	3	
Improve Local Railway	Acceptable / Very Acceptable	90	89	95	100	92	4.53
	Unacceptable / Very Unacceptable	5	0	0	0	2	
Reduce cost of PT	Acceptable / Very Acceptable	90	93	95	95	93	4.50
	Unacceptable / Very Unacceptable	10	4	0	0	4	
Improve Cycling and Walking	Acceptable / Very Acceptable	85	89	74	90	86	4.17
	Unacceptable / Very Unacceptable	0	2	5	0	2	
Home Working	Acceptable / Very Acceptable	70	89	68	86	81	4.08
	Unacceptable / Very Unacceptable	0	0	0	10	2	
Park and Ride	Acceptable / Very Acceptable	85	76	84	43	74	3.98
	Unacceptable / Very Unacceptable	0	0	5	14	3	
Car sharing	Acceptable / Very Acceptable	70	76	68	76	74	3.91
	Unacceptable / Very Unacceptable	0	7	0	5	3	
Road Expansion	Acceptable / Very Acceptable	80	80	68	38	70	3.69
	Unacceptable / Very Unacceptable	15	11	11	24	13	
Increase parking charges	Acceptable / Very Acceptable	25	15	26	29	21	2.39
	Unacceptable / Very Unacceptable	60	74	53	38	61	
Reduce Supply Parking	Acceptable / Very Acceptable	15	9	11	33	14	2.19
	Unacceptable / Very Unacceptable	70	74	63	43	66	
Introduce WPL	Acceptable / Very Acceptable	25	11	11	29	16	2.16
	Unacceptable / Very Unacceptable	65	80	74	38	67	
Introduce RUC	Acceptable / Very Acceptable	10	11	5	43	14	1.86
	Unacceptable / Very Unacceptable	85	87	84	33	78	

Base: 133 responses (Mean value – 5 = very acceptable and 1 = very unacceptable)

NB. Percentages may not add up to 100 due to rounding

Similarly to the effectiveness of the policies, the most acceptable measures are policies which provide improvements to the alternative methods to the use of the private car; these include reducing the cost of public transport, improving the frequency and reliability of public transport, improving local railway as well as an improvement of cycling and walking routes. As a general rule, the more effective a measure is the more acceptable that measure was deemed to be based on the rank order using a mean value. The one major exception to this is RUC as this policy was identified to be an effective policy for reducing congestion however is the least acceptable. The other policies with low acceptance were

associated with an additional cost for driving through measures such as increased parking charges or a WPL, as well as a reduction in the availability of parking.

The mean values between the most and least acceptable policies had a greater deviation than the responses for the effectiveness of the measures. This suggests that whilst local authorities have many policy options available with a perceived similar effectiveness, the acceptability of such measures varies greatly which could have a greater influence on the policy that is chosen.

London Boroughs had the greatest difference in opinion in comparison to other authorities as they deemed demand management measures such as a RUC and a WPL as more acceptable than other authorities. The responses of London Boroughs in comparison to other authorities also varied greatly for policies such as the use of park-and-ride and expanding the road network which were perceived to be much less acceptable. The least acceptable measure for an individual type of authority was the introduction of an RUC in a Metropolitan area. Metropolitan areas also viewed some of the softer measures as the least acceptable including home working, car sharing as well as improving cycling and walking routes.

Table 8.5 outlines the views of respondents with respect to the effectiveness and acceptability of the various policies available to address congestion based on the role of the respondent and are ranked based on how effective the policies were viewed collectively. Many of the views of Councillors and Officers with respect to the effectiveness and acceptability of the different policy options are fairly similar. However, Officers tended to view the expansion of the road network as well as market based demand management measures such as a RUC and WPL as more effective than Councillors.

There are also differences in the views with respect to the acceptability of demand management measures. The results highlight that Councillors believed that increasing parking charges, as well as the introduction of a WPL and a RUC were more acceptable than Officers although the majority of both groups view these approaches to be unacceptable for reducing congestion. Officers viewed the softer policy interventions as more acceptable; these include improving cycling and walking, car sharing and home working.

Table 8.5 – Role of respondent: Effectiveness and acceptability of policy measures for addressing congestion (% of respondents)

Policy Measure	Type of Respondent	Effective / Very Effective	Ineffective / Very Ineffective	Acceptable / Very Acceptable	Unacceptable / Very Unacceptable
Frequency and Reliability PT	Councillor	86	3	94	3
	Officer	85	6	96	1
Reduce cost of PT	Councillor	83	6	91	6
	Officer	80	6	94	3
Improve Local Railway	Councillor	77	9	91	0
	Officer	72	13	93	1
Improve Cycling and Walking	Councillor	77	17	80	3
	Officer	68	11	89	1
Home Working	Councillor	63	14	71	3
	Officer	58	9	86	1
Introduce a RUC	Councillor	49	29	23	69
	Officer	68	16	13	79
Park and Ride	Councillor	63	14	74	3
	Officer	60	23	72	4
Road Expansion	Councillor	43	29	63	14
	Officer	65	17	73	14
Car sharing	Councillor	43	20	60	6
	Officer	52	20	80	3
Increase Parking Charges	Councillor	37	31	31	57
	Officer	56	20	17	62
Reduce Supply Parking	Councillor	43	43	17	66
	Officer	47	31	14	65
Introduce a WPL	Councillor	34	31	26	60
	Officer	47	28	13	72

Base: 133 responses

NB. Percentages may not add up to 100 due to rounding

In summary, this section has identified that a WPL is perceived as the least effective method for reducing congestion in comparison to the other available policy measures proposed as well as the second least acceptable measure. London Boroughs view demand management measures more favourably in comparison to other authorities as well as viewing interventions such as road expansion and park-and-ride as ineffective.

8.4 Reasons for Introducing a WPL

From the Nottingham case study it was identified that the primary reason NCC introduced a WPL was in order to raise revenue to improve local transport which was part of a package of measures which would lead to a reduction in congestion, an environmental improvement as well as improved land use and urban regeneration. For this reason the views of key stakeholders within local authorities with respect to why a WPL would be introduced in their authority are presented in Table 8.6.

Table 8.6 – Type of Authority: Reason for introducing a WPL (% of respondents)

		County	Unitary	Metropolitan	London Borough	Total	Mean Value
Reduce Congestion	Strongly agree / Agree	70	61	63	62	61	3.56
	Neither agree nor disagree	25	28	5	19	24	
	Strongly disagree / Disagree	5	11	32	19	15	
Raise Revenue	Strongly agree / Agree	55	57	47	57	53	3.45
	Neither agree nor disagree	40	26	32	29	32	
	Strongly disagree / Disagree	5	17	21	14	15	
Environmental Benefit	Strongly agree / Agree	40	52	63	71	51	3.38
	Neither agree nor disagree	40	30	16	19	32	
	Strongly disagree / Disagree	20	17	21	10	17	
Improve Land Use	Strongly agree / Agree	20	33	26	33	26	2.93
	Neither agree nor disagree	45	39	47	43	46	
	Strongly disagree / Disagree	35	28	26	24	28	
Urban Regeneration	Strongly agree / Agree	15	13	32	29	19	2.73
	Neither agree nor disagree	45	50	37	33	45	
	Strongly disagree / Disagree	40	37	32	38	36	

Base: 118 responses

NB. Percentages may not add up to 100 due to rounding

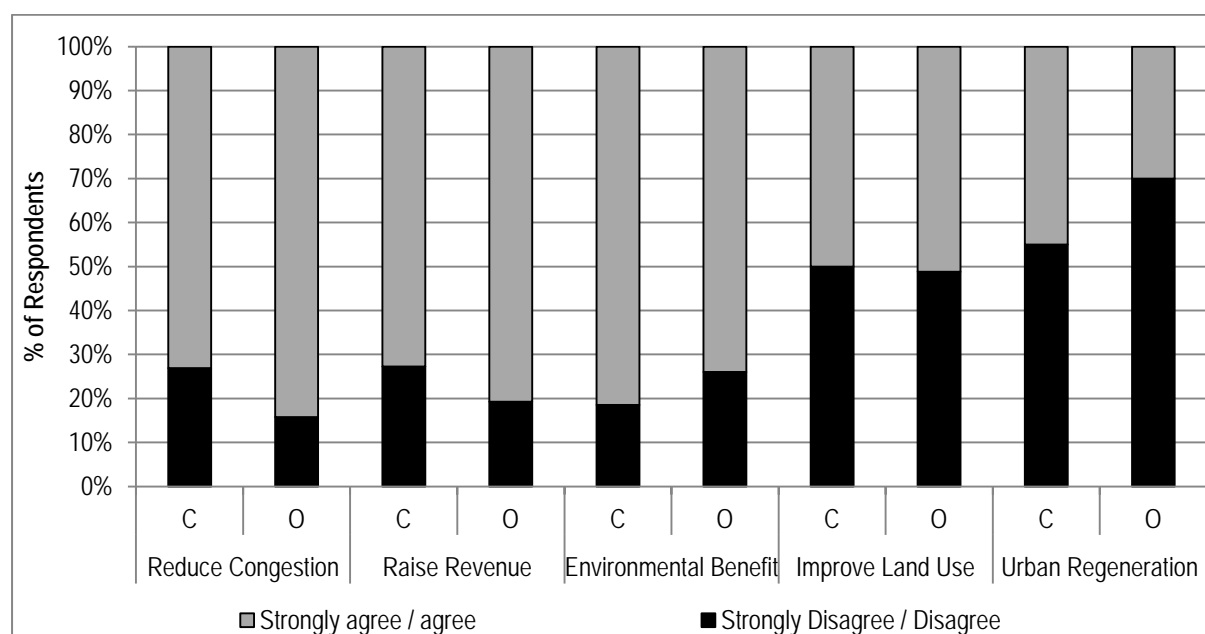
Table 8.6 reveals that the three most popular reasons for introducing a WPL would be to reduce congestion, raise revenue and for an environmental benefit. Whilst collectively the views on each of these three reasons are similar, individual authorities placed a greater emphasis on specific reasons.

For example only 5% of the County respondents stated *disagree* or *strongly disagree* that a WPL would be introduced to reduce congestion or raise revenue. What's more, the more urbanised the authority the more likely a WPL would be introduced for environmental reasons (London Boroughs, 71% *agree*; Metropolitan areas, 63%; Unitary Authorities, 52%). There is a similar view with regard to improving

land use and urban regeneration in that generally the more urbanised a location, the more likely a respondent was to state these reasons for introducing a WPL. Despite this however, improving land use and urban regeneration were the least popular reasons as to why an authority would introduce a WPL with less than a third answering *agree* or *strongly agree*.

There are very small differences with respect to the role of respondent and the views towards the reason why a WPL would be introduced; these are presented in Figure 8.4. A greater proportion of Officers stated *agree* or *strongly agree* that a WPL would be introduced in order to reduce congestion or raise revenue whilst a greater proportion of Councillors believed that a WPL would be introduced for environmental reasons or to regenerate the urban area. There is very little difference between the views with respect to using a WPL to improve land use.

Figure 8.4 - Role of respondent: Reason for introducing a WPL (% of respondents)



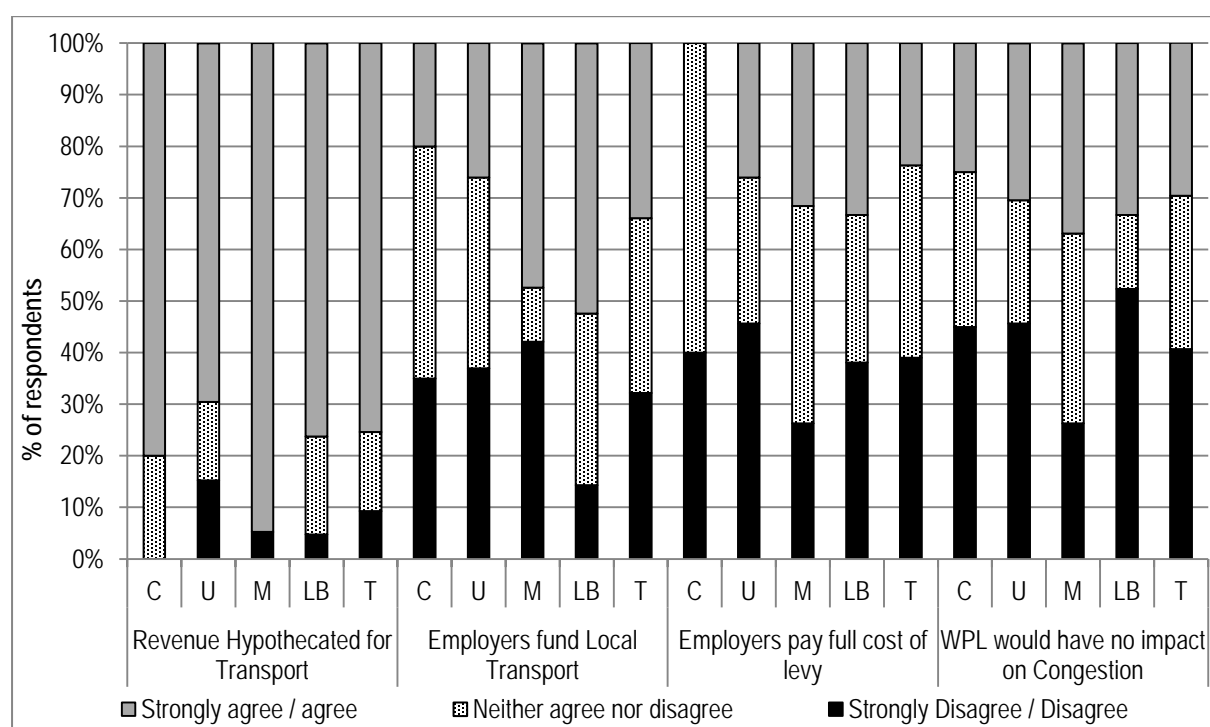
Base: 118 responses

In summary, the benefits associated with reducing congestion and raising revenue were recognised by the majority of the respondents and were therefore identified as the primary reason of why a WPL would be introduced. The environmental benefits associated are also recognised with urban authorities more likely to introduce a WPL for environmental reasons. This therefore emphasises the need to evaluate the WPL as part of a package of measures including the wider objectives the WPL can achieve. Whilst NCC highlighted the regenerative benefits of introducing a WPL, this was the reason least likely of why other authorities might introduce a WPL.

8.5 Issues associated with adopting a WPL

In the Nottingham Case Study, a number of issues were highlighted regarding the WPL and they have been categorised into Principles of a WPL (Figure 8.5) and issues relating to the Introduction of a WPL (Figure 8.6). Understanding the views of the key stakeholders within local authorities with respect to these issues is important so that the areas of concern and the barriers for local authorities interested in a WPL can be identified.

Figure 8.5 - Type of authority: Principles of a WPL



Base: 118 responses

Hypothecating the revenue to be spent on improving local transport was the principle the respondents were most in agreement (75%) with. However, there was less agreement for the other principles as only 33.7% stated *agree or strongly agree* that employers should fund local transport, 30% thought a WPL would have no impact on congestion and 24% thought employers should pay the full cost of the levy.

The views based on the type of authority with respect to the different authorities varied with the exception of the hypothecation of the revenue. This is because there was a big difference in where the funding for local transport improvements should be obtained from based on the type of authority as only 20% of the respondents from County Councils *agreed* that the funding should be obtained from employers whilst only 14% of respondents from London Boroughs *disagreed*. The results therefore

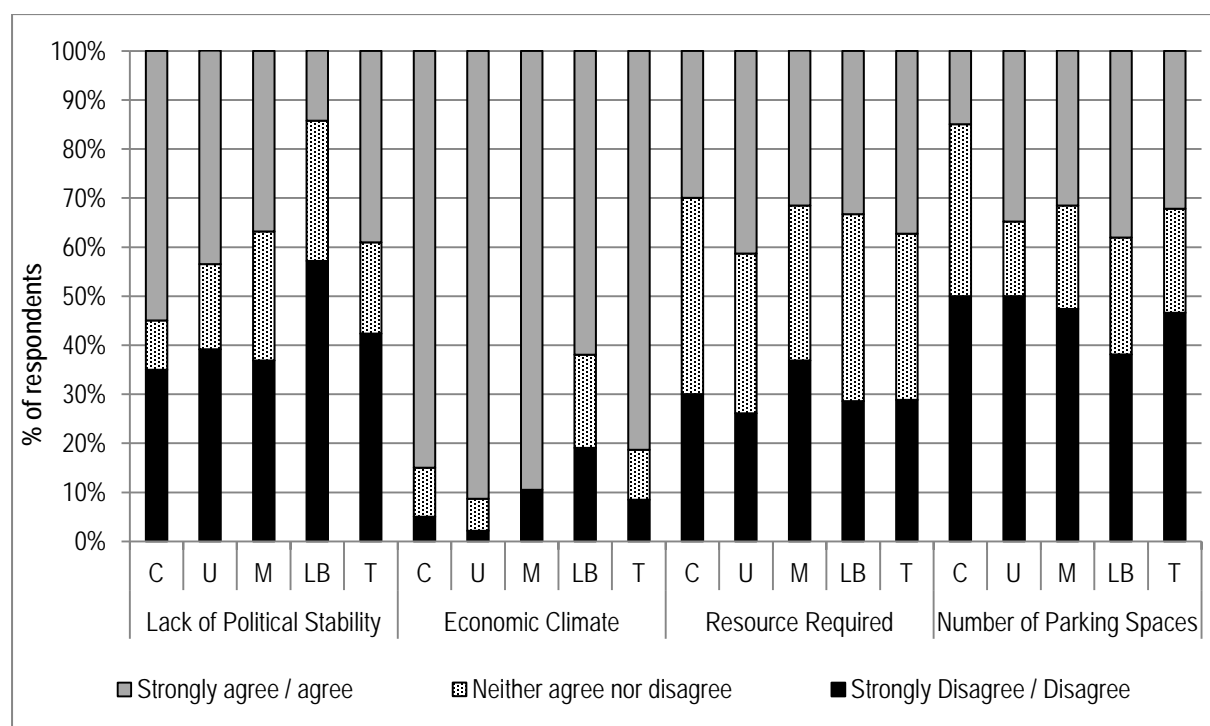
indicated that the more urban the type of authority the more likely the respondent was to *agree* that employers should fund local transport improvements.

Moreover, less than a third of respondents stated that employers should pay the full cost of the levy. The more urban the type of authority, the more likely they were to *agree* that the employer should pay the full cost of the levy hence none of the respondents from County Councils *agreeing* with the statement. In addition, large proportions of the respondents stated *neither agree nor disagree* which could indicate the feeling that the cost should be shared between employers and employees.

Approximately 30% of the respondents *agreed* that a WPL would have no impact on congestion although approximately 50% of respondents from Unitary authorities, County Councils and London Boroughs *disagreed*. Respondents from Metropolitan Boroughs had the most negative view of the WPL as 37% (the highest proportion of any authority) *agreed* the WPL would have no impact on congestion.

Figure 8.6 presents the views of authorities with respect to issues that were raised in the Nottingham Case Study associated with introducing a WPL. The results found that collectively the economic climate was the biggest concern followed by a lack of political stability (81%), having the resource required to explore a WPL (37%), and then understanding the number of parking spaces that exist (32%).

Figure 8.6 - Type of authority: Issues associated with the introduction of a WPL



Base: 118 responses

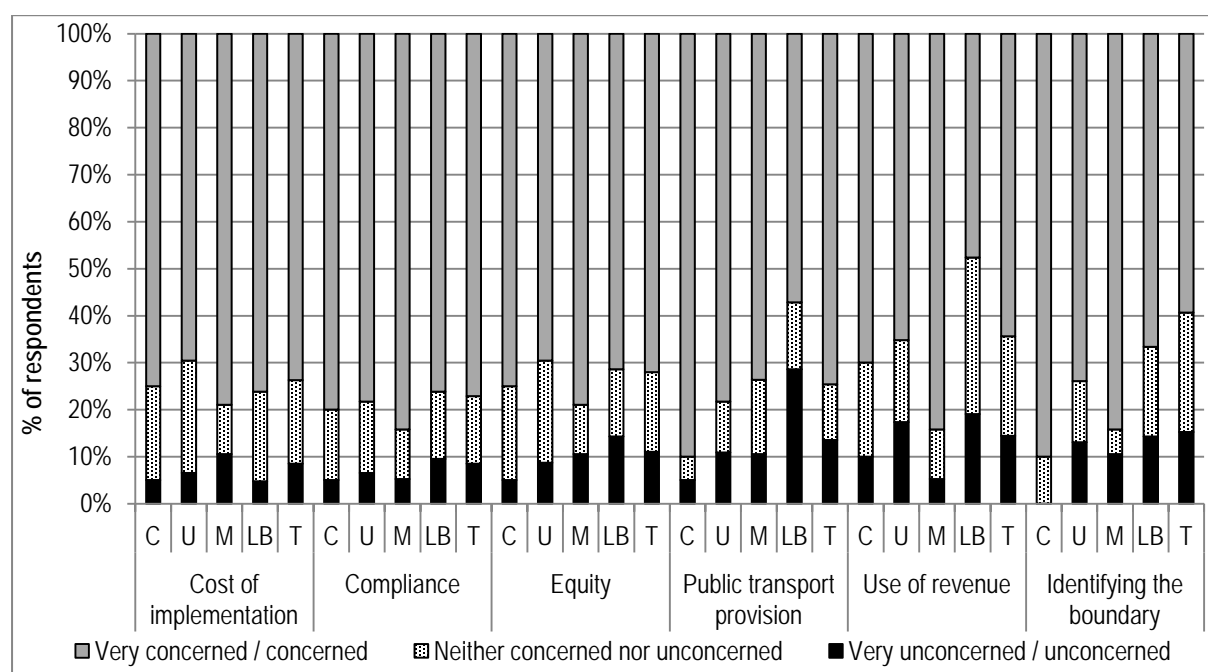
A lack of political stability was one of the major concerns raised from the Nottingham Case Study which would affect other authorities introducing a WPL. However, the views from the survey results varied significantly depending on the type of authority in that the more urban the authority, the less of an issue political stability is. This is because 55% of respondents from County Councils *agreed* that a lack of political stability would be a concern in comparison to only 15% of respondents from London Boroughs.

The majority of the respondents perceived the current economic climate as a potential issue (81%) which could have an impact on the introduction of WPL schemes during periods of economic uncertainty. Despite this, London Boroughs perceived the economic climate as less of a concern (62%) in comparison to the other types of authority.

The views with respect to having the resources necessary to introduce a WPL were fairly consistent for all authorities with approximately a third of respondents stating *agree* and *disagree*. The final concern of understanding the number of employer parking spaces was not perceived to be a significant problem as nearly half of all respondents either *disagreed* or *strongly disagreed* that it would be an issue. London Boroughs perceived it as the greatest problem (38%) and County Councils the least (15%).

Issues associated prior to introducing a WPL are highlighted in Figure 8.7 followed by the views with respect to concerns that need to be considered following the introduction of a WPL in Figure 8.8.

Figure 8.7 - Type of authority: Concerns prior to the introduction of a WPL



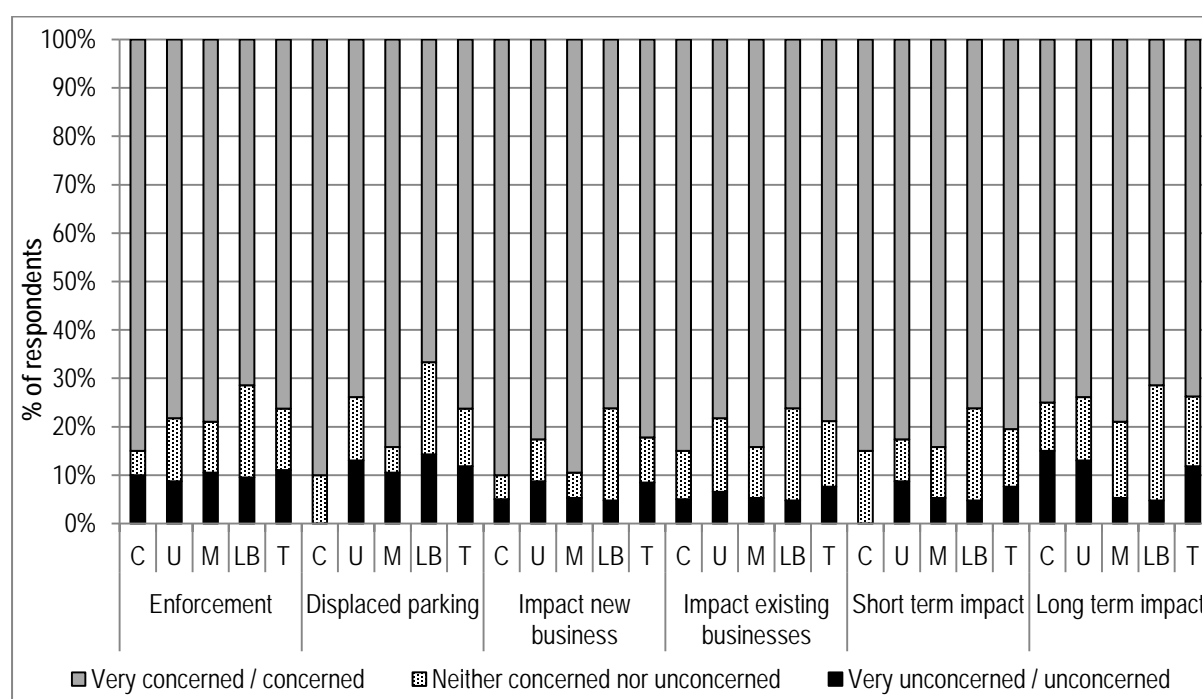
Base: 118 responses

At least two thirds of the respondents from all types of authority were either *concerned* or *very concerned* with the cost of implementation (74%), business compliance (77%), equity and fairness (72%) as well as a lack of public transport provision as a realistic alternative to motoring (75%). What's more, the majority of the respondents also viewed how to use the revenue (64%) as well as how to identify the boundary that is affected by the charge (59%) as additional concerns.

The more rural the type of authority, the more concerned the respondent was likely to be with regard to the availability of public transport. This is because 90% of County respondents were concerned in comparison to only 57% from London Boroughs. Respondents from London Boroughs were also the authority least concerned with respect to how to use the revenue (48%) with Metropolitan areas the most concerned (84%). These issues could therefore make local authorities reluctant to introduce a WPL due to significant concerns with implementing a scheme and understanding how it would work.

Figure 8.8 outlines that the majority of the respondents were also either *concerned* or *very concerned* with certain factors following the introduction of a WPL. The greatest concern was with respect to impact on new businesses (82% *concerned or very concerned*) followed by the short term impact (81%), impact on existing businesses (79%), enforcement (76%), displaced parking (76%) and the long term impact (74%).

Figure 8.8 - Type of authority: Concerns following the introduction of a WPL



Base: 118 responses

Whilst a large proportion of the respondents from London Boroughs expressed concern, they were the least concerned in comparison to other authorities with respect to all of the issues, in particular displaced parking (67% *concerned or very concerned*). The area of most concern was for the impact on new businesses specifically for County Councils and Metropolitan areas (90%).

In addition, the more rural the type of authority the more concerned they were with the enforcement of the scheme. The final analysis is that whilst there is only a slightly greater concern for the short term impact in comparison to the long term, it does indicate that the WPL is viewed to be less of a concern in the long term if the short term difficulties can be overcome.

An important aspect of the WPL is how expensive the parking spaces affected by the levy should be. A question was therefore designed to understand how expensive the respondents thought a parking space would need to be in order to achieve a 10% reduction in workplace parking spaces (Table 8.7). The average cost for a parking space was suggested to be between £401-600 although over 50% of the respondents thought a space should cost between £201 and £400. Respondents from London Boroughs were most likely to suggest the highest cost, over £1001, whilst Unitary Authorities were most likely to suggest the lowest cost, less than £200.

Table 8.7 – Cost of WPL per parking space (% of respondents)

	County	Unitary	Metropolitan	London Borough	Total
Less than £200	10	17	5	10	13
£201-400	25	22	26	33	28
£401-600	20	28	32	14	25
£601-800	20	15	16	19	16
£801-1000	15	9	16	5	9
£1001 or over	10	9	5	19	9

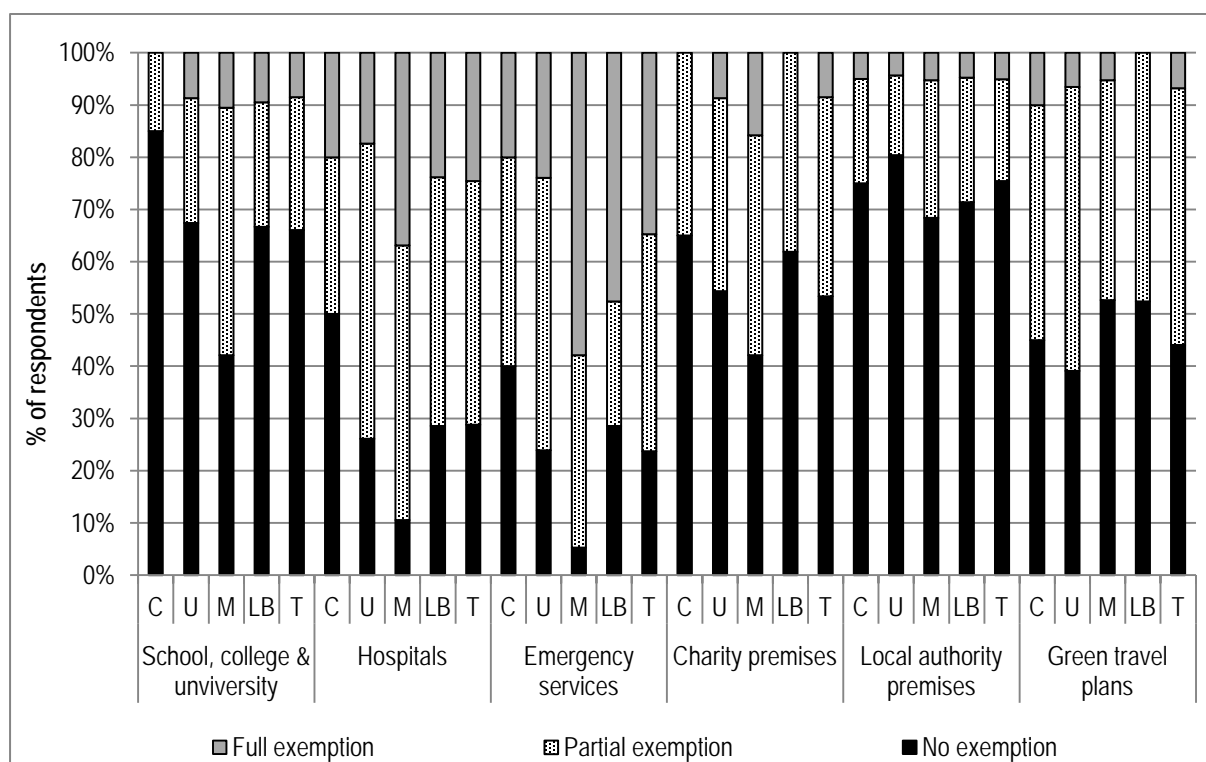
Base: 118 responses

NB. Percentages may not add up to 100 due to rounding

The next results that are presented are the views of the key stakeholders within local authorities with respect to which vehicles (Figure 8.9) and premises (Figure 8.10) should receive an exemption. In the Nottingham Case Study, the exemptions that were made by NCC were a topic for debate as many of the respondents disagreed that the first few vehicles at a workplace should not receive an exemption, and if they did, this exemption should apply to all premises.

Figure 8.9 indicates that the premises least likely to receive a full exemption are local authority premises (5% full exemption), followed by premises with green travel plans (7%), charity premises (8%), educational establishments (9%), hospitals (25%) and emergency services (35%).

Figure 8.9 - Type of authority: Exemptions for premises



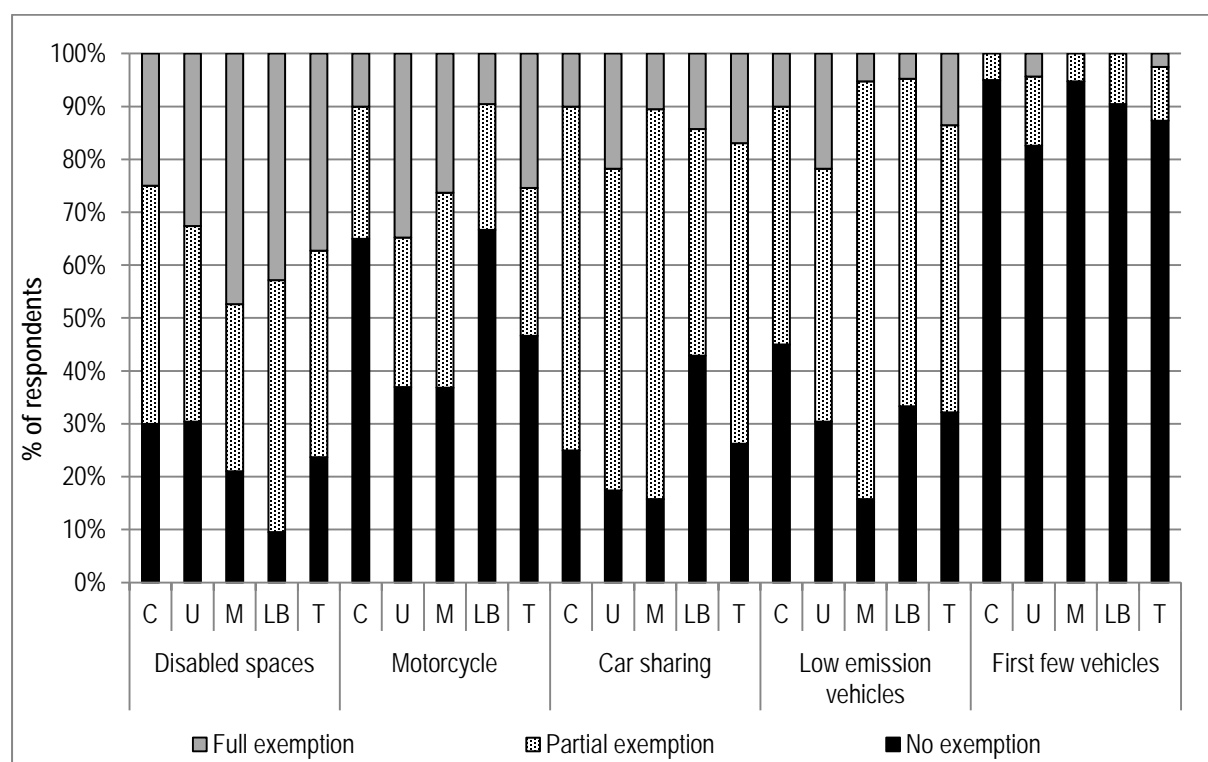
Base: 118 responses

What's more, it was also suggested that there should be at least some charge with a significant proportion of the respondents suggesting a full charge for educational establishments (91% at least a partial charge / 66% full charge), charities (92% / 53%) and local authority premises (95% / 75%) as well as locations with green travel plans (93% / 44%). In addition, whilst an increased number of respondents would exempt emergency services (35% full exemption) and hospitals (25%), a significant proportion suggested that some charge should be placed on the parking spaces at these locations. Local authority premises received the least support for a full exemption whilst Metropolitan Areas were the authority with the least support for providing exemptions, particularly for hospitals and emergency services. Interestingly however, on average more than a third of the respondents stated that there should be a partial exemption for different premises despite the desire of NCC to reduce the complexity of their scheme and thus avoid partial exemptions.

In addition to the views based on the type of premise, Figure 8.10 describes the respondents' views with respect to exemptions based on type and number of vehicles. The group with the least support for any form of exemption is for the first few vehicles at a location (87% no exemption), followed by motorcycle (47%), low emission vehicles (32%), car sharing (26%) and disabled spaces (24%).

Whilst an increased number of respondents stated that there should be full exemptions for disabled spaces (37%) and parking spaces for motorcycles (25%), the majority of the respondents still felt at least a partial charge should be placed on most categories. There was a strong view that spaces which encouraged car sharing should be rewarded with a partial exemption to reward the reduction in car use as well as a partial exemption for vehicles with low emissions which emphasises the environmental benefit a WPL can deliver.

Figure 8.10 - Type of authority: Exemptions for vehicles



Base: 118 responses

The differences between the views of Councillors and Officers with respect to exemptions are outlined in Table 8.8. The results suggest Councillors were more likely to provide full exemptions in comparison to Officers with the exception of motorcycles and car sharing whilst officers were more likely to provide a partial exemption except for educational establishments and motorcycles.

The greatest variation between the views of Councillors and Officers was for disabled spaces, low emission vehicles and emergency services. Officer stated that these categories should receive a partial exemption whereas Councillors were more inclined to either provide a full exemption (emergency services/low emission vehicles) or no exemption (disabled spaces/low emission vehicles).

Table 8.8 - Role of respondent: Exemptions (% of Respondents)

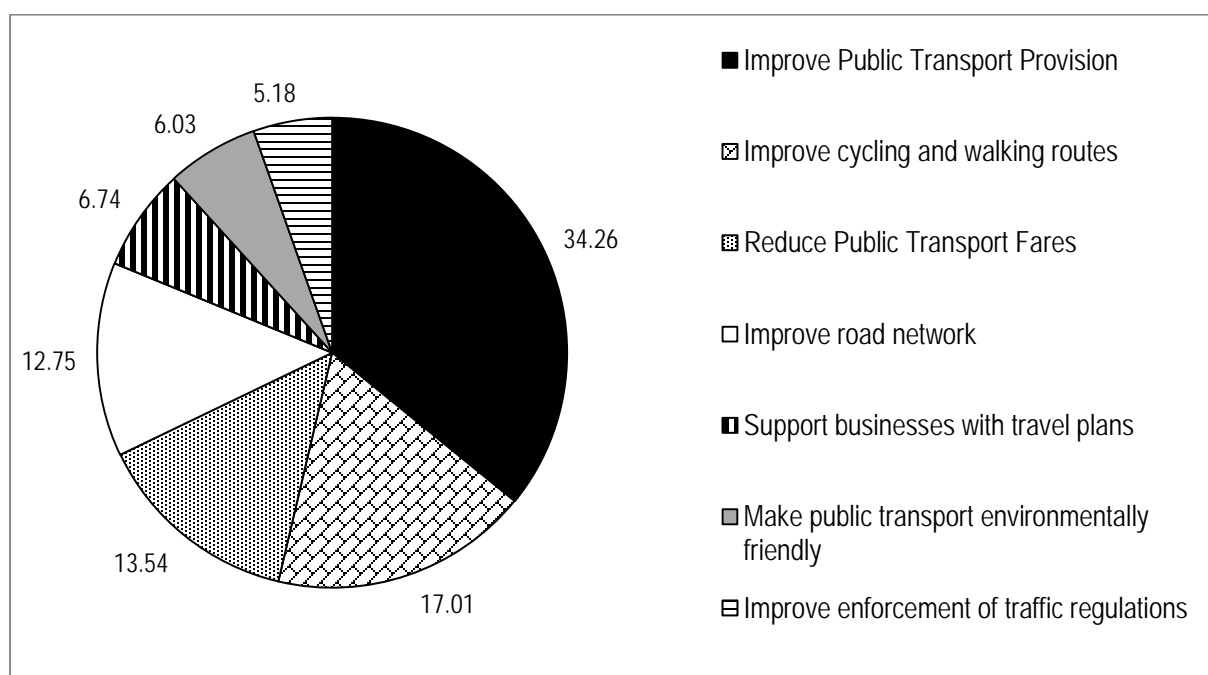
		No exemption	Partial exemption	Full exemption
School, college & university	Councillor	60	29	11
	Officer	69	25	6
Hospitals	Councillor	23	40	37
	Officer	31	54	16
Emergency services	Councillor	23	29	49
	Officer	25	48	27
Charity	Councillor	51	37	11
	Officer	58	38	4
Local authority premises	Councillor	71	20	9
	Officer	78	20	3
Green travel plans	Councillor	46	46	9
	Officer	45	51	4
Disabled spaces	Councillor	37	26	37
	Officer	18	47	35
Motorcycles	Councillor	49	29	23
	Officer	48	28	24
Car sharing	Councillor	29	57	14
	Officer	21	62	17
Low emission vehicles	Councillor	37	46	17
	Officer	28	61	11
First few spaces	Councillor	89	9	3
	Officer	89	10	1

Base: 118 responses

NB. Percentages may not add up to 100 due to rounding

In Figure 8.7 it was highlighted that less than 20% of the respondents were *unconcerned* with how to use the revenue from a WPL. To this end, a hypothetical question was asked to understand how the respondents would allocate 100 units of spending which equated to the revenue that could be raised if a WPL was introduced (Figure 8.11). The values presented in the pie chart indicate the average spend on each category based on all of the responses that were provided.

Figure 8.11 - Hypothetical allocation of revenue raised from a WPL



Base: 118 responses

Figure 8.11 highlights the importance of improving the alternatives using the WPL revenue as over a third of the revenue was allocated to improving public transport provision whilst close to an additional third was spent on improving cycling and walking routes and a reduction in public transport fares. In addition to this, it was also suggested that 13% should be spent on improving the road network with the remainder of the revenue allocated to support businesses with introducing travel plans, to make public transport more environmentally friendly and to improve the enforcement of traffic regulations.

The reason the total of the numbers do not sum to 100 is because respondents had the option to allocate funds to a transport improvement of their choice. These other improvements included providing funding to help change travel behaviour, improved travel information such as real time information for parking and public transport, and funding for new bus routes and facilities.

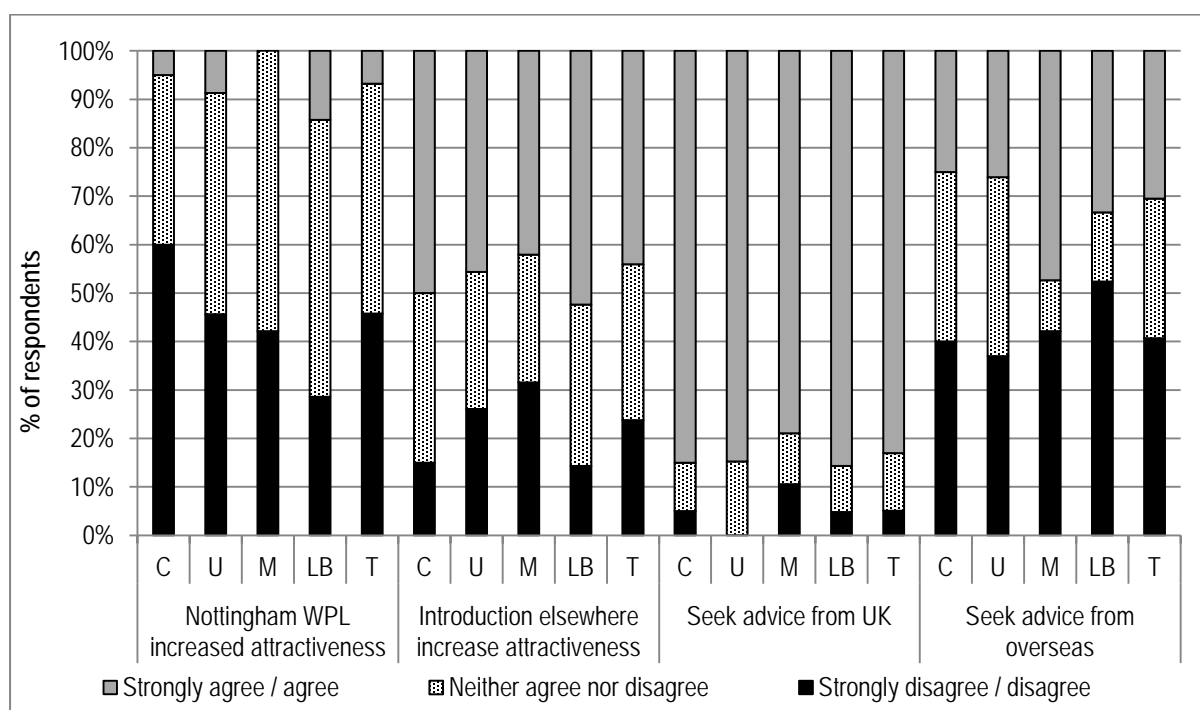
8.6 Influence of existing WPL schemes on other locations

In order to understand the influence existing WPLs would have for future schemes, several questions were focused to understand the role the Nottingham WPL may have as well as the potential influence to other authorities should another scheme be introduced in the UK.

Figure 8.12 indicates that whilst only 7% of respondents *agreed* the introduction of a WPL in Nottingham had made their authority more inclined to introduce a WPL, a significantly larger proportion (44%) *agreed* that if a WPL was introduced in other locations they would be more inclined to do so.

If a local authority were to introduce a WPL however, only 5% of the respondents stated that they would not seek support from local authorities in the UK with a WPL. A significantly larger proportion of the respondents (41%) stated that they would not seek support from local authorities with a WPL from overseas. This indicates the support authorities would seek to learn lessons of how to introduce a policy as well as the preference to learn from a similar context.

Figure 8.12 - Type of authority: Influence of other local authorities



Base: 118 responses

The more rural the type of authority the more likely they were to *disagree* that the introduction of the Nottingham WPL had made the scheme more attractive. This is because 60% of respondents from County Councils disagreed with the statement compared to only 29% from London Boroughs. What's more, respondents from London Boroughs were most likely to *agree* (52%) that the attractiveness of a WPL would be increased if introduced elsewhere; this was closely followed by County Councils (50%).

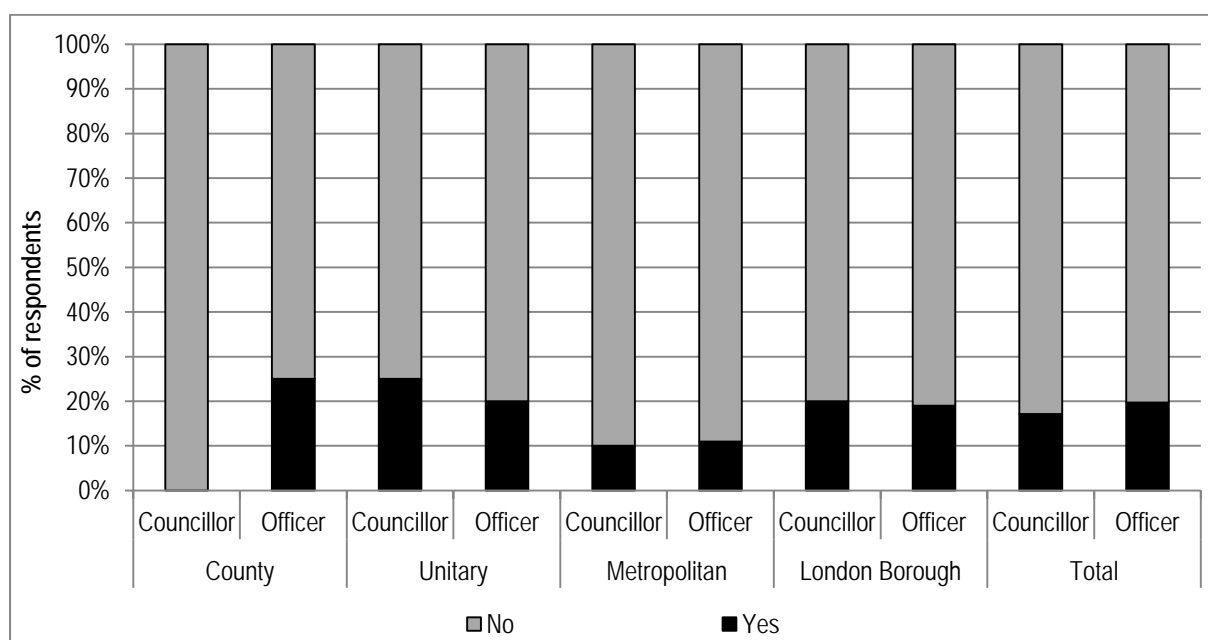
There is little difference between the different types of authorities and whether they would seek advice from UK authorities with a WPL as approximately 80% of all authorities stated *agree or strongly agree*.

Despite this however, Metropolitan areas (47%) and London Boroughs (33%) were most likely to seek support from overseas in comparison to Unitary Authorities (26%) and County Councils (25%).

8.7 Likelihood of another local authority introducing a WPL

The final section is focused to understand the likelihood of other authorities introducing a WPL following the introduction of the scheme in Nottingham. Figure 8.13 presents the views of authorities as well as the role of the respondents with respect to whether their authority had ever considered introducing a WPL. It illustrates that less than a quarter of the respondents (21 out of the 118 respondents) had considered introducing a WPL at the time of the survey.

Figure 8.13 - Considering introducing a WPL

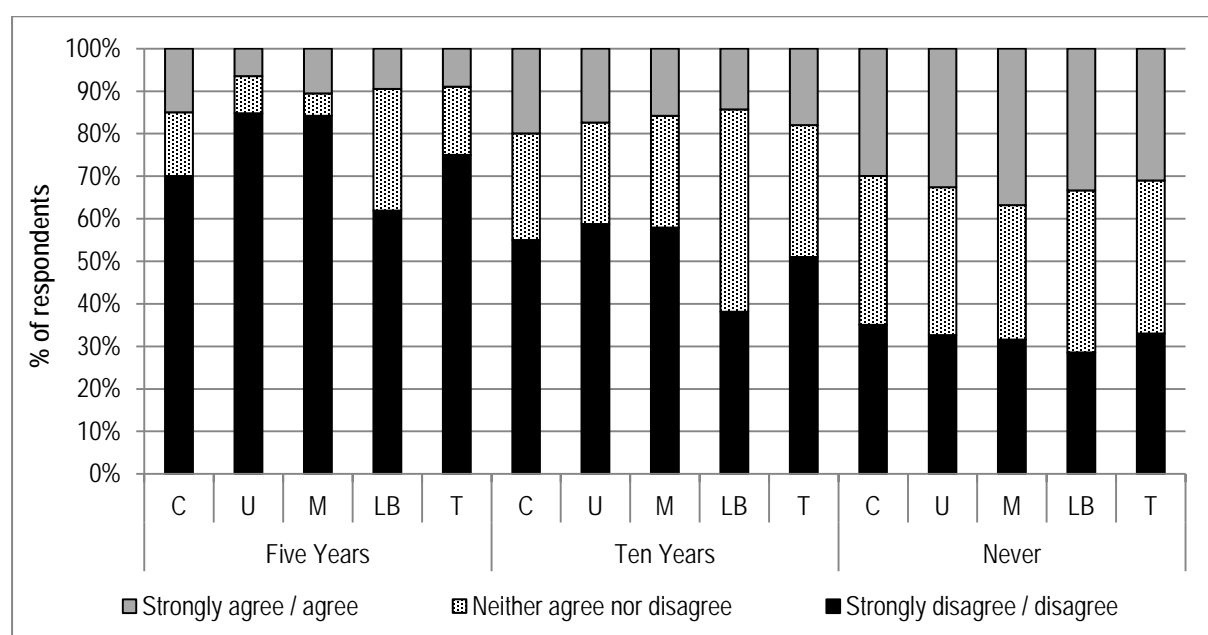


Base: 118 responses

Respondents from Metropolitan districts had shown the least interest out of all of the authorities as only 11% of the respondents stated that they had considered introducing a WPL in contrast to approximately 20% for respondents from County Councils, Unitary authorities and London boroughs. There was little difference between the views of Councillors and Officers with the exception of County Councils where no Councillors had stated that they had considered introducing a WPL in comparison to approximately 25% of Officers. Whilst the explanation could be an actual difference in views, this variation could be explained by the fact that the responses may have been received from different authorities.

Figure 8.14 indicates the likelihood of local authorities considering introducing a WPL in the next five or ten years as well as never. Interestingly 10 respondents *agreed or strongly agreed* that they would consider a WPL in the next 5 years and 21 respondents stated they would consider introducing a scheme within the next 10 years. Whilst there were at least 9 different authorities out of the 21 respondents that stated they would consider a WPL, 12 remained anonymous. This indicates the political sensitivity of respondents not wanting to be associated with introducing a WPL.

Figure 8.14 - Type of authority: Likelihood of introducing a WPL



Base: 118 responses

County councils were most likely to agree that they would consider introducing a WPL in the next 5 or 10 years whilst London boroughs were the least likely to disagree. Respondents from Metropolitan areas were most likely to *agree* that they would never introduce a WPL, although it was only marginally more when compared to other authorities. A large proportion of the respondents stated *neither agree nor disagree* for introducing a WPL in 10 years which indicates uncertainty with respect to whether future schemes will be adopted. In addition, 31% of respondents stated that they would never introduce a WPL and an indication as to the reasons why some authorities have no interest in a WPL were provided in the 'Any other comments' section at the end of the survey. These comments include:

"I'm afraid I do not know enough at this moment to make a real informed decision with regard to a WPL"

"At a time when we are trying to attract companies to the city, a WPL could be a disincentive"

"During a time of a struggling economy, WPL is the last thing that any Local Authority would introduce, especially given the priorities of local and national Government to regenerate and boost economies."

"I think the biggest barrier to introducing a workplace parking levy is local political acceptability."

"These decisions are started by political members and in the present environment there is no way WPL would even be discussed."

"WPL is not an issue that will get any serious attention during 'austerity' and uncertainty over transport funding."

"There is an extreme 'nervousness' about using tariffs to influence commuter behaviours in Greater Manchester following the Congestion Charging referendum"

Therefore, based on these views there are a number of factors influencing local authorities with regard to whether to introduce a WPL. These include a lack of knowledge, the current economic climate, view that an increased cost for businesses would have a negative impact on a location and would not lead to regeneration or boost for the local economy, and a political problem in that politicians need to instigate the discussions surrounding the possibility of a WPL and given the current climate that is unlikely.

In conclusion, the results have identified that 10 respondents believe that they will consider introducing a WPL in the next 5 years and 21 in the next 10 years. If this materialises, coupled with the view that a large proportion of the respondents agreed that a WPL would be more attractive if a WPL was introduced in other locations, it could make a WPL a popular measure to address the problem of congestion, funding for transport and an environmental improvement. These views are held despite the view a WPL is the least effective and second least acceptable measure out of the policies available for addressing congestion. The subsequent section will identify the factors that had the greatest influence on a local authority's decision to introduce a WPL.

8.8 The key factors that influence the likelihood of a local authority introducing a WPL

The previous sections in this chapter highlighted the views of key stakeholders within local authorities with respect to general transport issues as well as concerns associated with a WPL. However it

provided no indication as to which views were significant in determining whether a local authority is likely to consider introducing a WPL. For this reason, additional statistical analysis was required in order to identify the most influential questions with respect to understanding if a local authority were more or less likely to consider introducing a WPL. In order to undertake this analysis, a binary logistic regression model was implemented. Chapter 4 (section 4.6.3) explained the theory and justification for using binary logistic regression compared with other available statistical techniques. This section will reveal the process that was undertaken as well as an interpretation of the model results. Section 8.8.1 will first describe the three different models that were developed; this includes a model with the intercept only, the most parsimonious model and finally the most parsimonious model with the inclusion of the different types of authority. A summary is then provided in section 8.8.2.

8.8.1 Binary Logistic Regression Model

The purpose of model building is to establish the most parsimonious model, that is 'simpler explanations of a phenomenon are preferable to complex ones' (Field, 2012, p881). In order to establish the most parsimonious model, numerous iterations were made using different selections of the predictor variables using a hierarchical approach which allowed the independent variables that had a more significant influence predicting the outcome variable to be identified. Independent variables that were poor at predicting the outcome were also highlighted and subsequently removed from the model building process. Using the remaining significant variables, further iterations were undertaken to establish several models which could be compared in order to identify the most parsimonious model (Model 2). Once this model had been developed, an additional model (Model 3) was established with the inclusion of the different types of authority as a predictor variable. This would determine if the type of authority was significant for predicting the probability of the likelihood of a local authority considering introducing a WPL in the next ten years. To understand the improvement of the two models with the predictor variables, the results of the model using only the intercept will first be presented.

Model 1: Intercept Only

Using only the constant, the initial -2 log likelihood (-2LL) value is 110.518 and Model 1 is able to accurately predict 82.2% of the cases compared with the observed results from the sample (Table 8.9). As Model 1 performs poorly at predicting local authorities interested in a WPL (0%), it highlights the need to include predictor variables in order to improve the model. The individual values for the constant used in Model 1 are indicated in Table 8.10.

Table 8.9 - Classification Table

Observed	Predicted		
	WPL_Yes		Percentage Correct
	.00	1.00	
WPL_Yes .00	97	0	100.0
1.00	21	0	.0
Overall Percentage			82.2

Table 8.10 - Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)
Constant	-1.530	.241	40.420	1	.000	.216

Model 2: Most Parsimonious Model

This section presents the results from the most parsimonious model and will outline the performance of the model at predicting the dependent variable and is followed by an analysis and interpretation of the individual predictors. Table 8.11 indicates the final predictor variables that were used in the model. Appendix C presents further information with respect to the variables that were tested but ultimately omitted since they were not significant.

Table 8.11 - Model 2: Dependent and Independent Variables

Dependent Variable	Response
Is your local authority likely to consider introducing a WPL in the next ten years?	1 Yes 0 No
Independent Variables	Response
The short term impact of introducing a WPL	Concerned or very concerned
Identifying the boundary where a WPL charge would apply within your local authority	Concerned or very concerned
The long term impact of introducing a WPL	Concerned or very concerned
Enforcement of a WPL	Concerned or very concerned
Lack of political stability is a barrier to introducing a WPL	Agree or strongly agree
Would introduce a WPL primarily to reduce congestion	Agree or strongly agree
Reducing congestion by a reduction in the number of parking spaces on-street and off-street	Acceptable or very acceptable
The overall cost of implementing a WPL	Unconcerned or very unconcerned

The results of the most parsimonious model will now be described. Table 8.12 and table 8.13 indicate the improved model performance when predicting the probability of the likelihood of an authority adopting a WPL in the next ten years following the inclusion of the selected predictors. With the addition of these eight predictor variables, the new -2LL value is 63.360 which is a change of 47.158; this indicates the model is predicting the category outcome more accurately. The statistical significance of this change is highlighted by the Chi-squared result ($\chi^2(8) = 47.158, p < 0.001$) presented in Table 8.12 which confirms the model is significant to the 99% level. Moreover, a Cox and Snell R Square value of 0.329 and a Nagelkerke R Square value of 0.542 provides further indication that the model is a good predictor of the outcome variable (Table 8.13) (section 4.6.3, p117-118).

Table 8.12 - Omnibus Tests of Model Coefficients

		Chi-square	df	Sig.
Step 1	Step	47.158	8	.000
	Block	47.158	8	.000
	Model	47.158	8	.000

Table 8.13 - Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	63.360 ^a	.329	.542

Table 8.14 presents the results of the goodness-of-fit test. The Hosmer and Lemeshow test was used to assess the goodness-of-fit of the model in order 'to determine whether the fitted model adequately describes the observed outcome experience in the data' (Hosmer and Lemeshow, 2000). A Chi-squared value of ($\chi^2(7) = 7.494, p < 0.379$) means that we can reject the null hypothesis and be confident the model is a good predictor of the observed values.

Table 8.14 - Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	7.494	7	.379

A summary of the model performance is presented in Table 8.15. This test assesses how well the model predicts the dependent variable compared with the observed results in the sample. The classification table indicates the model accurately predicts 99% of the cases where the respondent is unlikely to consider introducing a WPL in the next ten years which suggests the model performs very

well at understanding the outcome for the dependent variable when the respondents are not considering introducing a WPL. With respect to predicting whether a local authority is likely to consider introducing a WPL in the next ten years, the model performed less accurately as the model correctly estimated only 57.1% of the cases compared with the observed data. Due to the weighting of the responses and the accuracy for when the event did not occur, it equates to an overall model accuracy of 91.5%. Therefore as the model accuracy with no predictor variables included was 82.2%, it indicates that there has been a 9.3% improvement with regards to the model predicting category membership.

Table 8.15 - Classification Table

Observed		Predicted		
		WPL_Yes		Percentage Correct
		.00	1.00	
WPL_Yes	.00	96	1	99.0
	1.00	9	12	57.1
Overall Percentage				91.5

Table 8.16 presents the results of the individual predictor variables. First, the Wald statistic outlines the contribution of each predictor in the model. Three out of the eight variables were statistically significant to below $p < 0.05$ and seven out of the eight to below $p < 0.10$. The 'B' values in the table were both positive and negative for the different predictor variables which indicate that some variables increase and some decrease the probability of the event occurring. The Exp(B) values indicate the odds ratio for each variable. Field (2012, p767) states that the odds ratio can be interpreted that 'if the value is greater than 1 then it indicates that as the predictor increases, the odds of the outcome occurring increase ... conversely, a value less than 1 indicates that as the predictor increases, the odds of the outcome occurring decrease' (section 4.6.3, p118).

There were three variables statistically significant to a 95% level ($p < 0.05$). Using the Exp(B) values, we can reliably state that the odds that a respondent will consider introducing a WPL in the next 10 years will decrease by a factor of 0.021 (95% CI 0.002-0.258) if they are concerned with the enforcement of the scheme and by 0.054 (95% CI 0.006-0.478) if they are concerned with the long term impact. However if the respondent was in agreement that political stability was a barrier to introducing a WPL, the odds that a respondent will consider introducing a WPL in the next ten years will increase by a factor of 5.497 (95% CI 1.118-27.023).

With respect to the variables statistically significant to a 90% level ($p < 0.10$), we can also state using the $\text{Exp}(B)$ value, although less reliably, that the odds a respondent will consider introducing a WPL in the next ten years will increase by a factor of 5.068 (90% CI 1.264-20.324) if the respondents agree that reducing the parking supply is an acceptable measure for reducing congestion; by a factor of 17.316 (90% CI 1.440-208.287) if the respondent is concerned with the short term impact of a WPL; by a factor of 5.347 (90% CI 1.138-25.126) if the respondent is concerned with identifying the boundary where a WPL charge would apply in their local authority and by a factor of 4.535 (90% CI 1.082-19.013) if the respondent agree that they would introduce a WPL to reduce congestion.

Table 8.16 - Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	C.I. for EXP(B)	
							Lower	Upper
Concerned short term impact	2.852	1.512	3.556	1	.059*	17.316	1.440*	208.287*
Agree political stability an issue	1.704	.813	4.399	1	.036**	5.497	1.118**	27.023**
Concerned identifying boundary	1.676	.941	3.176	1	.075*	5.347	1.138*	25.126*
Reduce parking acceptable to reduce congestion	1.623	.844	3.695	1	.055*	5.068	1.264*	20.324*
Introduce WPL to reduce congestion	1.512	.871	3.011	1	.083*	4.535	1.082*	19.013*
Concerned long term impact	-2.916	1.111	6.886	1	.009**	.054	.006**	.478**
Unconcerned cost of implementation	-3.778	2.358	2.567	1	.109	.023	-	-
Concerned enforcement	-3.844	1.270	9.157	1	.002**	.021	.002**	.258**
Constant	-2.164	.985	4.833	1	.028**	.115		

* - significant to 90% level; ** - significant to 95% level

All of these odds are significantly different to 1 which indicates the large effect all the variables have on the dependent variable. In summary, using the predictor variables identified in the model above, it is thought that the likelihood of a local authority considering introducing a WPL can be accurately determined. Furthermore, whilst the results of some of the individual predictors could be anticipated, three of the results for the individual predictor were unexpected. For example if a respondent is in agreement that political stability is a barrier to introducing a WPL, you could expect the respondent to be less likely to consider introducing a WPL in the next ten years. However a positive B value in the model indicates that if a local authority agrees political stability is an issue they have a higher probability of introducing a WPL. Despite this however, these unexpected results could be explained by the fact respondents interested in a WPL are more likely to recognise the difficulties associated with introducing a WPL. For this reason, authorities considering a WPL may be more likely to raise them as

potential issues in the survey compared with those who have not considered a WPL and the subsequent potential concerns associated with introducing such a scheme.

In addition, the variables which are used to build the model could be viewed as the more important concerns for interested authorities as they are good indicators for whether or not a local authority is likely to consider introducing a WPL in the next ten years. Furthermore as the local authorities not considering introducing a WPL do not highlight the unexpected results as concerns it could be because there are other reasons that are more significant as to why disinterested local authorities would not consider introducing a WPL.

The final test which was undertaken was to test for multicollinearity in order to ensure the predictor variables did not correlate with each other as this would have a negative impact on the model (section 4.6.3, p120). Table 8.17 presents the collinearity diagnostic table. In order to interpret the results, a tolerance value of less than 0.1 (Menard, 1995, Field p795) and VIF values greater than 10 (Myers, 1990, Field p795) indicate there is an issue with multicollinearity. Using this as a guide, we can confidently state that there are no issues with multicollinearity between the independent variables in this model.

Table 8.17 - Multicollinearity Diagnostic

Model	Collinearity Statistics	
	Tolerance	VIF
ShoTer_C	.437	2.287
PoliSta_A	.838	1.193
IdBou_C	.677	1.477
RedCon_A	.821	1.218
ARedPar_A	.882	1.134
LonTer_C	.449	2.227
CosImp_UC	.771	1.298
Enfor_C	.583	1.714

The next section will outline the result of a third model that was created which incorporated the type of authority the respondent represented in addition to the variables used in this first model.

Model 3: Inclusion of the different Types of Authority

The purpose of building this second model was to understand if particular types of authority were more inclined to introduce a WPL and to quantify the influence the inclusion of these categorical variables had on the model. The different types of authority were coded into dummy variables and Unitary Authorities were used as the reference case for the model. This meant County Councils, Metropolitan Districts and London Boroughs were included in the model and were classified as categorical variables due to the type of data.

Although the model improved, as would be expected with the inclusion of additional variables, it did not improve significantly enough to deem the model as more parsimonious (-2LL 60.831; Cox and Snell R Square 0.344; Nagelkerke R Square 0.565) (Table 8.18).

Table 8.18 - Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	60.831	.344	.565

When the model includes the type of authorities, using the Hosmer and Lemeshow Test, the model had a Chi-squared value of ($\chi^2(7) = 9.309$, $p < 0.231$) (Table 8.19). This indicates that we can reject the null hypothesis test, which suggests the model can adequately describe the observed outcome. Despite this however, the value is reduced in comparison to the previous model which suggests when the different types of authority are included, it does not improve the goodness-of-fit for predicting the outcome of the dependent variable.

Table 8.19 - Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	9.309	7	.231

With respect to the classification table however, it was more accurate for predicting the response for each case compared with the observed data (Table 8.20). It correctly predicted 100% of the cases where the respondent said they were not considering introducing a WPL in the next ten years (a 1% improvement). It was also more accurate at predicting the respondents that were considering introducing a WPL in the next ten years as it estimated 61.9% correctly (a 4.8% improvement). This model therefore achieved an overall accuracy of 93.2% compared with 91.5% with the previous model.

Table 8.20 - Classification Table

Observed	Predicted		
	WPL_Yes		Percentage Correct
	.00	1.00	
WPL_Yes .00	97	0	100.0
1.00	8	13	61.9
Overall Percentage			93.2

Table 8.21 presents the results of the independent variables and indicates the variables for each of the different types of local authority are not statistically significant. Moreover, the inclusion of the different types of authority has a negative impact on the significance of the other individual predictor variables although the results are similar to the previous model where the predictor variables remain significant.

Table 8.21 - Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	90% C.I. for EXP(B)	
							Lower	Upper
Concerned short term impact	2.727	1.558	3.063	1	.080*	15.282	1.178	198.253
Agree political stability an issue	1.422	.891	2.544	1	.111	4.144	.956	17.955
Concerned identifying boundary	2.135	1.054	4.104	1	.043**	8.459	1.494	47.893
Reduce parking acceptable to reduce congestion	2.067	1.031	4.017	1	.045**	7.903	1.449	43.110
Introduce WPL to reduce congestion	1.656	.920	3.241	1	.072*	5.237	1.154	23.771
Concerned long term impact	-3.238	1.147	7.970	1	.005**	.039	.006	.259
Unconcerned cost of implementation	-3.888	2.417	2.588	1	.108	.020	.000	1.091
Concerned enforcement	-3.917	1.321	8.798	1	.003**	.020	.002	.175
County Council	.668	1.002	.444	1	.505	1.950	.375	10.141
Metropolitan Council	.897	1.061	.714	1	.398	2.451	.428	14.044
London Borough	1.541	1.156	1.778	1	.182	4.671	.698	31.265
Constant	-4.700	2.135	4.848	1	.028**	.009		

* - significant to 90% level; ** - significant to 95% level

8.8.2 Summary

Model 2 proved to be a good predictor of whether or not a local authority was likely to consider introducing a WPL in the next ten years. The model indicated respondents who were concerned with the long term impact and enforcement of the WPL were less likely to consider introducing such a

scheme in the next ten years. This demonstrates that if the scheme is not perceived to be simple and straight forward with respect to enforcement as well as if the respondents do not see the long term benefit of a WPL, then a WPL is unlikely to be considered.

However, it also found that if reducing the parking supply was an acceptable measure for reducing congestion as well as if the reason for introducing a WPL was to reduce congestion, then an authority was more likely to consider introducing a WPL. These views highlight the link between a positive view with respect to how parking policies are perceived as a measure to reduce congestion and the likelihood of a local authority introducing a WPL. It could therefore be suggested that if more local authorities viewed parking policies more positively, then it could lead to a greater number of local authorities interested in considering introducing a WPL.

The final statistically significant variables at first perusal could appear illogical. This is because the model suggests a respondent is more likely to consider a WPL if they were concerned with the short term impact, a lack of political stability as well as identifying the boundary where the WPL would apply. Despite this, it could be argued local authorities considering a WPL are likely to be more aware and therefore concerned with potential issues than authorities not interested. This is because authorities not interested in a WPL are unlikely to be concerned with these problems as they have had to give less consideration and are therefore be less likely to highlight these as a concern in the survey. In addition, it could be argued these variables are the problems of greatest concern for authorities interested in a WPL based on the modelling results. If this is the case, then the same could be true that these are of a less of a concern for authorities not interested in a WPL. This could indicate a lack of interest in a WPL is not due to concerns with a lack of political stability for example, but because a WPL may be seen to be inappropriate for certain locations or indeed because no problem exists that is worth introducing a policy to address.

8.9 Chapter Summary

This chapter has presented the results of a national survey undertaken with all the English authorities with the power to introduce the WPL. It has identified that parking policies are unpopular with Officers and Councillors as they are generally viewed to be ineffective and unacceptable for reducing congestion. Moreover, the respondents also highlighted issues with the principles and design of a WPL which could be expected to impact the number of proposed future schemes. Despite this, 23 respondents stated that they were likely to consider introducing a WPL in the next ten years. On this

basis, it is likely that a limited number of other authorities are likely to introduce a WPL in the short to medium term following the introduction of the WPL in Nottingham.

This chapter has also outlined how the WPL would become more attractive if other local authorities adopted the scheme as well as the support the majority of the respondents would obtain from UK based parking levies as well as the support approximately a third would seek from overseas. A binary logistic regression was then applied to the data in order to understand the key factors influencing the likelihood of a local authority adopting a WPL. Whilst some of the results could be expected, such as respondents were less likely to introduce a WPL if they were concerned with the long term impact and enforcement of a WPL, some of the results appeared more illogical although explanations as to why this may be were provided. The next section will discuss these results as well as the other findings in this thesis in line with the literature in the early chapters of this thesis.

Chapter Nine: Discussion

9.1 Introduction

The previous four chapters explored the WPL in the UK context at both the national and local level. The purpose of this chapter is to draw these findings together and summarise the results in the context of the literature and research questions proposed in Chapters 1, 2 and 3. Section 9.2 will first address the general transport policy research questions proposed in Chapter 1; section 9.3 will cover the research questions specifically relating to the WPL highlighted in Chapter 2 and section 9.4 will then cover the research questions relating to the theoretical underpinning outlined in Chapter 3.

9.2 Implications for Transport Policy

Whilst the car has provided numerous benefits, Eddington (2006, p5) indicated that in the UK, 'eliminating existing congestion on the road network would be worth some £7-8 billion of GDP per annum'. Moreover, Ison and Wall (2003, p142) suggested that 'issues of congestion and traffic-related pollution in urban areas of the UK are likely to remain a problem for the foreseeable future and continued research and education are required in terms of the relative merits of the various policy options'. To this end, Chapter 1 gave rise to research questions 1 and 2 in order to understand the views of Government and Local Authorities with respect to congestion and parking policies, in particular the WPL which was identified to be an under-researched parking policy. Section 9.2.1 (congestion) and 9.2.2 (parking policies) provide a brief overview of the key points highlighted from Table 9.1 which summarise the key findings of the literature, Nottingham sub-case study and National sub-case study.

9.2.1 The views of Government and Local Authorities with respect to traffic congestion

Today congestion is more acceptable amongst the public as it was identified to be viewed as 'a part of modern day life' which is thought to have pushed the need to address the issues associated with congestion down the political agenda. For this reason, it is thought that the issues associated with congestion are not perceived to be significant enough in some locations to warrant the introduction of demand management measures. In certain locations however, congestion is viewed to be more

significant than others and therefore Government have allowed local authorities to make 'local decisions' as to whether to introduce charging schemes based on what is best for their locality. Applying this principle, NCC viewed the issues associated with peak period congestion as well as the expected growth in car use as significant enough to warrant the introduction of a WPL to reduce commuter car use due to its contribution to peak period congestion (section 7.3).

Whilst Government initially viewed charging schemes primarily as measures to address the issues associated with congestion, today there is a greater emphasis on integrating transport policies to achieve wider policy objectives. This includes raising revenue to fund more sustainable transport, improvements to land use as well as delivering 'triple win outcomes' to the environment, economy and health which could suggest Government view the issues associated with congestion as less important to when the Transport Act 2000 was published (section 5.3). At the local authority level, it is thought that the issues associated with congestion have not been deemed significant enough for some local authorities to take the risk of introducing a charging scheme; that however may change following the reduced risk of introducing a WPL following the introduction of such a scheme in Nottingham (Section 9.4.2).

9.2.2 The views of Government and Local Authorities with respect to parking policies

In 1988, Government scrapped a tax on workplace parking due to the difficulty of collecting the revenue and understanding liability. The issues associated with free workplace parking were however still recognised and therefore Government granted power to local authorities to introduce a WPL although this was identified by some to be passing on the difficulties of taxing parking. To better understand the impact of such a scheme, Government were keen to use early adopters of the WPL as 'pilots' or experiments (Shipan and Volden, 2008) in order to inform recommendations for further schemes as well as policies to manage other types of parking, such as out-of-town shopping centres (section 5.2).

Despite this desire to understand the WPL, Government favoured RUC as it was seen as the first-best solution for reducing congestion and placed a low rate of tax on a high number of things which was seen by Government to be politically more acceptable. It is also thought that the unfamiliarity and uncertainty surrounding the WPL could have also made such a scheme less popular with Government as although the impacts of a RUC were also unclear, a feasibility study had been undertaken which provided a context for a RUC scheme in London. Local authorities however did not have such benefit and therefore generally viewed a WPL to be more attractive and politically less contentious compared

with a RUC (section 5.5). In addition, the introduction of the WPL in Nottingham is expected to make such a scheme more familiar with other authorities and Government (Section 9.4.2) which could ultimately encourage further adoption and this supports the view that 'only the experience gained in pilot programs will change minds' (Pierce and Shoup, 2013, p80).

There were also further differences between Government and Local Authorities in that Government placed more emphasis on charging measures for reducing congestion whilst Local Authorities placed more emphasis on the revenue that could be raised. Local authorities were therefore attracted by the revenue from a WPL scheme to deliver local transport improvements which could also be used as a potential precursor to a RUC scheme if a stronger demand management measure was later required. Despite these differences, both Government and Local Authorities recognised the importance of hypothecating the revenue in order to deliver a package of measures on the basis that without such hypothecation, local authorities were unlikely to introduce such schemes. The use of this revenue was identified to be of significant importance for the Nottingham WPL on the basis that NCC placed a large emphasis on the improved local transport the WPL would deliver to facilitate local economic success (section 7.3).

Parking policies however, were viewed by Local Authority Officers and Councillors as ineffective and unacceptable for reducing congestion (section 8.3) and this view specifically for the WPL therefore contradicts the view of Shiftan and Golani (2005) that successful parking policies should be ones that affect commuters without affecting visitors. What's more, although parking policies are viewed to be more acceptable than RUC (Albert and Mahalel, 2006), the evidence in this thesis suggest that this is only marginally so. A WPL however was viewed to be more acceptable and effective by Officers and Councillors from London Boroughs which is thought to be partly explained by the fact these respondents identified the issues associated with congestion and air pollution as more *serious* as well as because of a greater awareness of the benefits of demand management measures via the London congestion charge.

Table 9.1 –Transport Policy Research Questions

Research Question	Transport / Policy Transfer Literature	Nottingham Case Findings	National Case Findings	Key Points
What are the views of Government and Local Authorities with respect to traffic congestion?	<p>Traffic congestion is a significant cost at the national level; £7-8 billion per annum in the UK (Eddington, 2006).</p> <p>Expanding the road network is not sustainable and therefore a greater emphasis on demand management (SACTRA, 1994).</p> <p>Morning congestion (84% of respondents) and evening congestion viewed as <i>serious</i> or <i>very serious</i> by Councillors, Officers and Academics and likely to remain a significant problem (Ison and Wall, 2003).</p> <p>Congestion today is more accepted amongst the public at individual level but seen as a problem at societal level (Goodwin and Lyons, 2010).</p>	<p>Congestion estimated to cost £160 million per annum, half of which fell on business.</p> <p>Future estimated traffic growth deemed unsustainable and therefore desire to improve alternative transport and reduce car use.</p> <p>Congestion was recognised as an issue amongst the majority of the interview respondents</p> <p>Congestion primarily during peak periods and caused by commuters.</p> <p>NCC emphasise the importance of good transport for economic success.</p>	<p>Today, Government places increased emphasis on Local Authority transport strategies to achieve 'triple win outcomes'.</p> <p>Generally, congestion viewed less seriously today compared with when the Transport Act 2000 was published as congestion is viewed as 'a part of modern day life'.</p> <p>Only 45% of Officers and Councillors viewed the issues associated with morning or evening congestion as <i>serious</i> or <i>very serious</i>.</p>	<p>As congestion is more accepted amongst the public today it may have reduced the importance of reducing congestion and therefore moved it down the political agenda.</p> <p>Congestion varies between locations and therefore is a greater problem for some authorities than others.</p> <p>The issues with congestion are primarily associated with peak periods, a major proportion of which are commuters.</p> <p>The wider benefits transport projects can deliver have placed a greater emphasis on the broader objectives</p>
What are the views of Government and Local Authorities with respect to parking policies?	<p>Second-best alternative to road pricing (Verhoef et al, 1995).</p> <p>Lack of control over private parking affects the effectiveness of parking strategies (Enoch and Ison, 2005).</p> <p>A lack of control for local authorities over free workplace parking is a significant issue due its influence on peak period congestion (Hill, 2005).</p> <p>Difficult to charge for parking at the workplace as parking viewed as a</p>	<p>Nottingham (and Local authorities generally) were more enthusiastic about a WPL over a RUC as it was viewed to be politically less contentious; more appropriate for smaller areas; would cost less to implement and operate; would be simpler to introduce; could raise significant sums of revenue; the revenue could be spent immediately which makes it politically more appealing as benefits may be</p>	<p>Although Government scrapped a previous parking tax due to difficulties with collecting the revenue and understanding liability, there was still the view that free parking at the workplace was an untaxed employee benefit and a major factor with respect to how commuters travel to work.</p> <p>Government abandoned minimum parking requirements to address future problems and gave powers to local authorities to introduce a WPL to address existing problems.</p> <p>Viewed pilot WPL's as 'experiments' in order to understand the impact of the scheme to base</p>	<p>Government passed on the difficulties of taxing parking and were keen to understand the impact of a WPL through pilot experiments.</p> <p>Government places a greater emphasis on the reduction in congestion whilst Local Authorities place a greater emphasis on the revenue.</p> <p>WPL is viewed to be less politically contentious by local authorities whilst RUC is viewed to be less politically</p>

	<p>'labour' right (Costa et al, 2014).</p> <p>Hypothecation can improve acceptance if the new charge is linked to transport improvements (Deran, 1965).</p> <p>Successful parking measures should impact commuters but not visitors (Shiftan and Golani, 2005).</p> <p>'Parking policy is a sensitive area for employers, the retail sector, residents and thus politicians (Ison and Rye, 2006).</p> <p>Parking policies are more acceptable than RUC (Albert and Mahalel, 2006).</p> <p>Policies introduced by local authorities can be viewed as a 'laboratory of democracy' in order to allow Governments to understand their impact (Shipan and Volden, 2008).</p> <p>Schemes that are unfamiliar can be unpopular and 'only the experience gained in pilot programs will change minds' (Pierce and Shoup, 2013)</p>	<p>able to be delivered in a single term of office; commuters often travel from outside a councils administrative boundary which reduces the political risk; would not deter visitors; likely to be more popular with people living in the urban area; and could be a precursor to RUC if a stronger demand management measure was required at a later date.</p> <p>Nottingham placed a greater emphasis on the revenue to deliver transport improvements than as a direct congestion reduction measure.</p> <p>Supported hypothecation.</p> <p>WPL could be used to leverage additional funds to improve transport.</p> <p>The Nottingham scheme will reduce the risk for other authorities interested in a WPL as the impact of such a scheme will be better understood.</p>	<p>future recommendations for further schemes as well as whether to extend it to similar schemes for other types of parking</p> <p>Government and Treasury favoured RUC as viewed more effective at reducing congestion and placed a low rate of tax on a large number of things (motorists) as opposed to a high rate of tax on a low number of things (workplaces); this was viewed as politically less contentious.</p> <p>If Government provided more support for the WPL, there was the view that more schemes could have been introduced. However, Government responded by stating that WPL schemes were designed to solve local problems and it was a Local Authority decision.</p> <p>Although the Treasury is usually opposed to hypothecation, it was recognised that the effectiveness of the WPL was dependent on using the revenue to deliver a package of measures.</p> <p>The least effective measure for reducing congestion was a WPL (40% <i>effective / very effective</i>) followed by reducing the availability of parking (44%) and increasing the cost of parking (48%).</p> <p>A WPL (16% <i>acceptable / very acceptable</i>), increasing the cost of parking (14%), or reduction in the supply of parking (21%) were all identified to be unacceptable and only slightly more acceptable than RUC.</p> <p>Respondents from London Boroughs viewed a WPL as the most <i>effective</i> and <i>acceptable</i>.</p>	<p>contentious by Government</p> <p>WPL could act as a precursor to improve local transport before introducing a RUC</p> <p>Hypothecation viewed to be important to improve the effectiveness of a WPL.</p> <p>Parking is viewed by Local Authorities to be ineffective and unacceptable.</p> <p>View with respect to the WPL contradicts the view of Shiftan and Golani (2005) that successful parking policies should affect commuters without affecting visitors.</p> <p>WPL is viewed to be only slightly more acceptable than RUC.</p> <p>A WPL could be viewed more acceptable and effective in London Boroughs because these respondents also identified the issues associated with congestion and air pollution as more <i>serious</i> and have experienced demand management via the London congestion charge.</p> <p>The introduction of the Nottingham WPL may encourage other authorities to introduce such a scheme as it becomes more familiar.</p>
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9.3 The WPL as a Transport Policy Measure

This section will address the research questions proposed in Chapter 2 which were designed to understand the WPL in the UK due to the absence of literature. It will cover the reasons why a WPL may be introduced (section 9.3.1), the extent to which a WPL can be deemed more appropriate than alternative transport policy options (section 9.3.2), the issues associated with design and implementation (section 9.3.3) as well as the likely impact (section 9.3.4). Similar to the previous section, Table 9.2 summarises the key findings of the literature, Nottingham sub-case study and National sub-case study whilst the following sub-sections elaborate on the key points made.

9.3.1 The reason(s) why local authorities might seek to implement a WPL

The reason for the Nottingham WPL is complex as it could be viewed as a measure to reduce congestion, raise revenue, improve the environment or improve the local area due to the wider impacts the scheme will deliver. These different objectives therefore need to be considered when WPL schemes are evaluated to ensure that the full package and improvements are understood. Moreover, it is also of particular importance for Local Authorities to recognise the wider benefits a WPL can achieve due to the current view of Government in that new transport measures should be designed to deliver 'triple win outcomes' to the economy, health, and environment.

The primary reason for the WPL in Nottingham however was to raise the revenue necessary to fund the tram extension due to the importance NCC politicians placed on having good transport to support economic prosperity as well as a desire for the City to be viewed as a modern European city. This was because NCC initially explored the WPL during the years of the CDP which cooled once the funding for NET Line One had been identified and the interest into such a scheme was only reignited following a desire to extend the tram network further. Therefore whilst the WPL is also likely to deliver improvements to congestion and the environment and could act as a potential precursor to a RUC given that the revenue would improve local transport which could help the acceptance of such a scheme at a later date, the WPL was primarily introduced in Nottingham to raise revenue (section 7.3).

When the Transport Act 2000 was published, English authorities were primarily interested in charging schemes as a way of funding a tram (Table 5.7) which supports the view that local authorities place a greater emphasis on the revenue from charging schemes than a reduction in congestion (section 9.2.2).

More recently however, approximately half of Officers and Councillors from English authorities stated that if they were to introduce a WPL it would be to reduce congestion, raise revenue or for an environmental benefit which indicates that some authorities recognise the multiple benefits a WPL can deliver (section 8.4). Officers and Councillors from London Boroughs were most likely to recognise the multiple objectives a WPL could deliver which could provide further explanation as to the reason why these respondents viewed a WPL as more effective and acceptable than other authorities.

9.3.2 To what extent can a WPL be deemed more appropriate than alternative transport policy options as an urban transport policy instrument?

The WPL is viewed by Officers and Councillors as one of the least effective and acceptable measures for reducing congestion which could suggest such a scheme is an inappropriate transport policy instrument. The same respondents however viewed all the demand management options available (RUC, WPL, increase parking charges and reduce parking supply) to be ineffective and unacceptable for reducing congestion despite the fact it was recognised that some form of demand management is likely to be necessary to manage car use in the future (section 8.3).

Accordingly a WPL was viewed to be more appropriate than a RUC by some Local Authorities on the basis that it was seen to be politically less contentious given that some of the costs would fall on motorists that reside outside an authority's administrative boundary (section 7.3). Further political advantages were also identified in that the revenue would deliver transport improvements within a council's administrative area which is likely to be popular with an authority's electorate whilst charging a parking provider (employers) as opposed to directly charging the motorist reduces the blame on the council as the decision to reduce the parking supply or charge the motorist is ultimately the employer's responsibility. This therefore could indicate that future parking policies may be more acceptable with the public if they charge the provider instead of directly charging the motorist even though the cost may be passed on.

An additional benefit of the WPL in the UK is that Local Authorities and Government are less concerned as to how the cost is managed, at least in the short term, despite the importance of passing the charge on to the motorists for the Melbourne levy (Hamer et al, 2011). This is because if the WPL charge is passed on to the motorist, the increased cost may influence them to change their behaviour whilst if the employer pays there is an incentive for business to reduce their parking supply, thus reduce car use to the site, or pay the levy which generates revenue for local authorities to improve local transport and encourage public transport use. Local Authorities therefore benefit from reduced congestion and/or

increased revenue to improve local transport, both important factors for transport policy instruments. Moreover once the local transport improvements have been delivered, the cost of the levy can be increased or decreased in future years depending if there is a need for a 'stick' to further reduce car use (section 7.6.2).

Despite these benefits, the WPL is broadly viewed to be ineffective and unacceptable for reducing congestion as it is unlikely to achieve the optimal outcome which has ultimately meant Government favour the first-best RUC as a measure for reducing congestion. However, 23 Officers and Councillors stated that it is likely they would consider introducing a WPL in the next ten years indicating that the WPL may be appropriate for additional locations as was the case in Nottingham (section 8.7). Moreover, as authorities become more familiar with the WPL following the 'pilot' in Nottingham, it is likely to encourage further adoption in the UK which is similar to the introduction of additional parking levies in Australian cities following the implementation of the Sydney scheme. Therefore whilst a WPL does not deliver the optimal solution specifically for reducing congestion, the revenue potential and political advantages over other types of demand management measures mean that such a scheme is likely to be deemed more appropriate in certain locations.

Table 9.2 – WPL Research Questions

Research Question	Transport / Policy Transfer Literature	Nottingham Case Findings	National Case Findings	Key Points
For what reason(s) might local authorities implement a WPL?	<p>Parking policies can be introduced to raise revenue, restrain car use and regenerate an area. These objectives however can conflict (Marsden, 2006).</p> <p>Parking levies have been introduced to reduce car use and manage traffic levels, to encourage public transport, to improve air quality, to raise revenue and to change the make-up of vehicles travelling to a city by discouraging commuters through increased prices for long stay parking (Enoch and Ison, 2005; Transport for NSW, 2013; Enoch, 2001; Hamer et al, 2011).</p> <p>To improve local transport to support economic prosperity as locations with poor transport are at a competitive disadvantage (Docherty et al, 2009).</p>	<p>Reason for Nottingham WPL is complex as it could be viewed as (1) a revenue raising activity to fund the tram extension; (2) a measure to reduce congestion by placing an increased cost on workplace parking in attempt to discourage commuters from driving to work due to the role free workplace parking has on peak period congestion; (3) an environmental measure by reducing congestion combined with the investment in light rail transit, green buses and support for business travel plans; (4) a measure to improve the local quality of life by making Nottingham a more attractive place to live and work by improving land use and investing in local infrastructure including the tram extension and railway station upgrade.</p> <p>Introduced for all the reasons above but primarily to fund the tram to allow NCC to improve local transport due to the importance the council placed on transport for facilitating economic prosperity.</p> <p>To be comparable to other leading European cities with tram networks.</p> <p>Could be used as a precursor to RUC by using the revenue from WPL to improve local transport first.</p>	<p>Transport measures should be introduced to address triple win outcomes (Economy, health and environment).</p> <p>During the initial years of the CDP, other authorities were primarily interested in charging schemes as a way to fund a tram.</p> <p>Today however, approximately half of Officers and Councillors from English authorities stated that if their authority were to introduce a WPL, it would be to reduce congestion, raise revenue and/or for an environmental benefit.</p> <p>The same respondents also indicated they were less likely to introduce a WPL in order to improve land use or for urban regeneration.</p> <p>A WPL most likely to be introduced by County Councils to reduce congestion, by Unitary Authorities to raise revenue, by London Boroughs for environmental reasons and by Metropolitan Boroughs to reduce congestion / environmental reasons.</p> <p>London Borough respondents most likely to recognise the multiple objectives a WPL can achieve and could be why these respondents view a WPL to be more effective and acceptable.</p>	<p>WPL can achieve all three parking objectives (Marsden, 2006) without conflict as visitors are not deterred and are instead potentially encouraged whilst business has not been deterred.</p> <p>Parking levies can be introduced for multiple reasons and therefore need to be evaluated considering the full WPL package and improvements.</p> <p>The importance NCC placed on good transport to facilitate economic prosperity was a major factor in introducing the WPL.</p> <p>Had a vision to compete with other leading European transport cities and therefore needed revenue to fund a tram extension</p> <p>WPL could act as a precursor to improve local transport before introducing a RUC</p> <p>Government are more likely to support a WPL where the package delivers triple win outcomes</p> <p>Authorities that recognise the multiple objectives a WPL can deliver are likely to view a WPL as more effective and acceptable.</p>

<p>To what extent can a WPL be deemed to be more appropriate than alternative transport policy options as an urban transport policy instrument?</p>	<p>Parking policies are 'more likely to yield improvements rather than an optimal outcome' (Button and Verhoef, 1998).</p> <p>Parking policies do not affect through-traffic or those who can vary how long they park (Glazer and Niskanen, 1992).</p> <p>Parking charges do not consider how far a motorist has travelled nor the route travelled which is important as the charge the motorist pays will not accurately reflect the costs motorists impose on other road users (Verhoef et al, 1995).</p> <p>Successful parking measures impact commuters but not visitors (Shiftan & Golani, 2005)</p> <p>Parking policies are more acceptable than RUC (Albert and Mahalel, 2006).</p> <p>Parking policies can either directly or indirectly affect the user either through a direct charge or by charging parking providers (Enoch, 2014)</p> <p>Unfamiliar schemes can lack acceptance and 'only the experience gained in pilot programs can change minds' (Pierce and Shoup, 2013).</p> <p>The effectiveness of parking</p>	<p>Identified that some form of demand management was necessary to address the issues associated with congestion.</p> <p>Nottingham favoured a WPL over a RUC as it was viewed to be politically less contentious; more appropriate for smaller areas; would cost less to implement and operate; would be simpler to introduce; could raise significant sums of revenue; the revenue could be spent immediately which makes it politically more appealing as benefits can be delivered in a single term of office; and would not deter visitors.</p> <p>Costs and benefits advantageous in that some of the costs fall on motorists that reside outside NCC's administrative boundary who would be required to pay without having the ability to vote to change the City political party.</p> <p>The City residents likely to have the greatest propensity to change travel behaviour as well as benefit from the improvements which could reduce negativity of NCC's voters..</p> <p>By not having a preference as to whether business or motorist pays the levy NCC was able to reason with any affected stakeholders. This is because the lack of clarity with regards to who should pay is blurred by the fact NCC were able to highlight to business that they can avoid the cost by passing the charge on to employees and can outline to motorists if the charge is passed on, it is the businesses responsibility to manage the cost, thus reduce blame.</p>	<p>Government recognised the issues with private parking, particularly at the workplace, but had difficulties collecting a previous tax and were therefore keen to learn lessons as to the impact of the Nottingham WPL. This will happen in a formal DfT evaluation no earlier than the 2016/17 financial year.</p> <p>Government favoured RUC because it was viewed to be more effective at reducing congestion.</p> <p>Government however recognised that local authorities favoured a WPL as it would may be more suitable for smaller areas, less politically contentious as well as attractive because of the revenue.</p> <p>Local authorities viewed a WPL to be less effective and acceptable than many other measures for reducing congestion although 23 respondents stated they were likely to consider introducing a WPL in the next ten years.</p> <p>Only slightly more acceptable than RUC.</p> <p>The introduction of the Nottingham scheme has made a WPL slightly more attractive and the introduction of additional WPL schemes in the UK will make the WPL considerably more attractive.</p> <p>Less concerned as to how the WPL cost is managed in that if the motorists pays, the increased cost may influence a change in travel behaviour whilst if the</p>	<p>A WPL is viewed to be more appropriate than a RUC by some, particularly smaller, local authorities.</p> <p>Can be more politically more acceptable for local authorities where many commuters travel from outside their administrative boundary due to where the costs and benefits fall.</p> <p>Some form of demand management is necessary and it is politically less contentious to charge a parking provider as opposed to directly charge the motorist or directly reduce the supply of parking available.</p> <p>WPL is viewed to be only slightly more acceptable than RUC.</p> <p>Although a WPL is not the 'optimal outcome', it is able to deliver significant benefits.</p> <p>For this reason, whilst a WPL is viewed ineffective and unacceptable for reducing congestion, 23 respondents stated they were likely to consider introducing a WPL which could indicate that although not perfect, a WPL is appropriate and beneficial for some locations such as the revenue that can be available.</p>
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	<p>levies can be reduced if the cost is not passed on to the intended motorist (Hamer et al, 2011).</p> <p>Parking levies spread in Australia from Sydney to Perth to Melbourne and more recently to Adelaide</p>	<p>Whilst perceived to be unfair (section 9.3.3), a WPL has been introduced in Nottingham relatively painlessly with a number of benefits such as the revenue (section 9.4.2).</p>	<p>business pays, there is an incentive for employers to reduce their parking supply, thus reduce congestion, or raise revenue for local authorities to improve local transport in attempt to encourage people to use public transport.</p>	<p>The more familiar authorities become with the WPL particularly if the formal evaluation is favourable, the more likely authorities are to introduce a WPL.</p>
<p>What are the issues associated with the design and implementation of a WPL scheme?</p>	<p>Parking policies are less complex and administratively easier to introduce than RUC (Acutt and Dodgson, 1997).</p> <p>Incremental changes can help improve acceptance (Ison, 2014).</p> <p>Whilst exemptions can improve equity, too many exemptions can complicate enforcement (Rye and Ison, 2005).</p> <p>A flat workplace parking charge will have a greater impact on lower income earners (Baldassare et al, 1998).</p> <p>Introducing a new charge is likely to lead to resistance as parking feels like 'a right rather than a privilege' (Shoup, 2005, pp591-592).</p> <p>Whilst a consultation can improve public acceptance, at some point policy makers need to 'bite the bullet' on the basis that if the situation improves following the introduction of the</p>	<p>Difficulty of understanding the number of liable spaces for enforcement and compliance reasons.</p> <p>Balancing the need to improve the equity of the scheme by applying exemptions versus the increased administrative complexity of enforcing a number of exemptions.</p> <p>Despite concerns for the impact of the WPL charge on lower income earners, NCC indicated it was the employer's responsibility to manage who and how much each employee pays.</p> <p>Need to collaborate with employers to improve compliance and enforcement such as by providing employers support with introducing travel plans.</p> <p>Setting the cost of the levy and how the revenue is used needs to be identified and designed into the scheme early as the legislation makes it cumbersome process to change.</p> <p>Some employers are likely to pay or benefit disproportionately and may always remain opposed to the scheme; 'backbone' is therefore required for introducing the scheme</p>	<p>One DfT respondent thought the cost of the levy in Nottingham was initially too low although later conceded it was a good idea to increase the cost once the charge was in place.</p> <p>Government stated the cost of the WPL should not be set solely as a revenue raising activity and instead as a method to reduce congestion.</p> <p>Recommendation for a six month lead-in-period to ensure all employers are licensed and understand the scheme.</p> <p>Issues associated with a lack of clarity with respect to who pays the levy as well as because of the issues associated with quantifying the costs and benefits of a congestion charging scheme. This is because it is easy for an employer or motorist to quantify the cost based on the price of a parking space whilst the benefits are less tangible as it is more difficult to quantify the costs associated with improved congestion, an extended tram network, or improved local air quality.</p> <p>Consideration that a Referendum was</p>	<p>Although parking policies are less complex and administratively easier to introduce than RUC, difficulties of understanding the number of spaces, exemptions, equity, decision as to whether to hold a referendum, displaced parking and the importance of having good transport prior to the introduction of the scheme mean that the introduction of a WPL is by no means simple.</p> <p>Whilst exemptions can help improve acceptance, balance is required with simplifying the scheme as this can reduce the cost of enforcement.</p> <p>Individuals and employers are likely to have a disproportionate benefit or cost associated with the WPL and therefore despite the likelihood of initial resistance, it is important for local authorities to press forward with a scheme if it is deemed the correct measure.</p> <p>Whilst the revenue may be important in the early years, it may</p>

	<p>policy, 'opposition will reduce' (Rye and Ison, 2005).</p> <p>Acceptance of schemes can be improved if the scheme is simple to understand and there is a visible sign of the money being spent (Rye and Ison, 2005).</p>	<p>Complexity of the scheme made it difficult to outline the benefits of the measure.</p> <p>Difficulty of holding a Referendum because of the challenge of outlining what voters were voting for in terms of whether it was a WPL, a tram, a railway station upgrade or an environmental improvement as well who would have vote as you could argue residents in the Councils administrative boundary; commuters who live outside the boundary but work in the City; employers affected by the levy; and residents on the tram route all should have a vote which was impractical as well as because the difficulties of assigning a weight to each response (e.g. there are less employers than residents).</p> <p>Political importance and benefit of marketing the delivery of a major infrastructure project</p> <p>Issues with congestion caused by the installation of major project.</p> <p>Importance of having good transport prior to introducing a charging scheme as it can improve trust amongst the public that the outlined improvements would be achieved.</p> <p>Consider where parking may displace to and how restrictions are imposed, particularly in residential areas, due to the opposition for parking restrictions by some residents.</p>	<p>likely to lead to an unfavourable result on the basis that an additional cost was unlikely to gain support when you consider the nature and impact of the winners and losers and their likelihood to vote.</p> <p>The national legislation to introduce WPL was more focused on RUC which made it difficult for authorities to introduce a WPL. NCC however has corrected these issues to make it easier for Local Authorities to introduce such a scheme.</p> <p>A delay for the introduction of the scheme due to external factors such as the economic climate which can delay the generation of revenue.</p>	<p>be better if a lower charge can be introduced and later increased which can help initial acceptance.</p> <p>Whilst a major deliverable can boost acceptance, it can also cause frustration in the short term due to the issues caused by the installation works making congestion initially worse.</p> <p>A WPL can attract negative attention due to the nature of the costs and benefits and how easy they are to quantify.</p>
What are the likely impacts of a WPL scheme?	<p>The hypothecation of all or a portion of the revenue to subsidise or fund public transport improvements is important (Enoch and Ison,</p>	<p>WPL unpopular in the short term due to (1) the additional cost during an economic downturn which meant it was necessary for one employer to make a redundancy; (2) the administrative burden of understanding the</p>	<p>Government recognised that a WPL would be unpopular in the short term due to the additional motoring cost.</p> <p>Government (as well as NCC) are keen to undertake a formal evaluation to</p>	<p>WPL leads to short term issues such as administrative burden which is likely to reduce over time</p> <p>WPL had already led to increased public transport use and been</p>

	<p>2005; Parking and Traffic Consultants, 2011).</p> <p>Little or no impact on car use (Property Council Australia, 2004; Enoch and Ison, 2005).</p> <p>'A significant reduction in the number of people travelling to the city by car' (Hamer et al, 2011).</p> <p>A 10% reduction in parking spaces in the first year which led to an increase in the availability of public short stay parking which although unpopular with commuters has increased the number of visitors and shoppers (Enoch, 2001).</p> <p>Despite a 10 fold increase in the cost per space in Perth over the past 12 years, the number of licensed spaces has remained relatively stable (Parking and Traffic Consultants, 2011).</p> <p>Employers may move a location where there is no charge after a WPL is introduced (Enoch and Ison, 2005)</p> <p>Important to pass the increased parking costs on to the motorists to maximise the effectiveness of the levy (Hamer et al, 2011).</p> <p>Small reductions in car use can deliver large benefits on the</p>	<p>number of licences required to cover all their employees without incurring a penalty charge based on out of office working, holiday and sickness; ensuring no illegal parking was occurring as well as how to pass the charge on to employees; (3) the fact congestion worsened initially due to the construction works on the road network associated with the extension of the tram as well as the fact that there were no exemption for motorists that change their travel behaviour temporarily on the basis that if the cost was passed on, employees pay an annual charge for parking which can be viewed as a sunk cost which can encourage motorists to drive every day.</p> <p>Little changed following the introduction of the WPL as the levy was 'embedded as business as usual'. This was because in the first two years of the WPL in Nottingham, 23 companies had located or expanded in the charge area creating an additional 1198 jobs. What's more, there was no drop in enquiries from previous years which meant the inward investment team dealt with 351 enquiries in the first two years the WPL was operational and no businesses had left.</p> <p>The reason businesses located in Nottingham was because the operational cost of the site, which includes the cost of the WPL, was not the primary factor that determined where an employer would locate.</p> <p>Although employers may publicly oppose a WPL, some employers were grateful in that they could introduce charges for parking with reduced opposition from their staff as they</p>	<p>properly understand the impact of the WPL on congestion, business and the environment in Nottingham. This was in part due to scepticism from some respondents in that the WPL package and tram extension may make congestion worse given that through traffic would remain unaffected and would indeed be encouraged as well as that the revenue could have been better spent elsewhere.</p> <p>This evaluation however is dependent on the full package being delivered and will therefore not be completed until the 2016/17 financial year at the earliest.</p> <p>The impact of the WPL in Nottingham will also be influenced by the introduction of schemes elsewhere on the basis that if Nottingham is the only city in the UK with an increased cost for business, it may have a negative impact on employers leaving or not moving to the city.</p>	<p>'embedded as business as usual' as businesses had move in to the City with no drop in enquiries due to other factors such as accessibility being greater factors influencing the decision as to where a business locates.</p> <p>View that employers quietly support the WPL as it can act as a catalyst for managing the cost of workplace parking</p> <p>Introduction of a WPL facilitates a wider parking strategy as NCC introduced P&R sites, encouraged businesses to implement shared parking, travel plans and car park management schemes and small changes to congestion can have large impacts.</p> <p>Sharing parking reduces the land use designated to parking and allows employers to recuperate some of the costs and reduces the land use designated to parking.</p> <p>P&R encourages commuter to change travel behaviour to reduce peak period congestion further.</p> <p>The WPL allowed NCC to lever in significant amounts of revenue to improve local transport which is expected to make Nottingham a more attractive place to live and work.</p> <p>NCC designed an effective parking</p>
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	<p>road network due to the non-linear behaviour of congestion and can be better if a policy does not change all motorists' behaviour (Markoff, 2012).</p> <p>Parking is 'one of the most emotive subjects there possibly is in employee relations' (Ison et al, 2007, p163)</p> <p>Effective parking policies contribute 'to the promotion of a more efficient use of the transport network, lower emissions, higher densities and better, more inclusive urban design' (Marsden, 2006).</p> <p>Sharing parking can improve efficiency of land use designated to parking (Forinash et al, 2004).</p> <p>P&R can be used to reduce parking supply in the centre and reduce commuter travel whilst encouraging visitors (Meek et al, 2008; IHT, 2005; RAC, 2012)</p>	<p>could place the blame on the local authority. This would allow employers to reduce the cost of providing parking for employees and possibly raise revenue if the charge is higher than the WPL cost.</p> <p>To this end, in the first two years 38% of employers (primarily larger businesses) affected by the levy implemented a car park management scheme where some of the cost is recouped from the employees.</p> <p>One employer had started sharing and charging events traffic to use their parking spaces</p> <p>Public transport use had increased prior to the full improvements being realised</p> <p>The WPL revenue allowed NCC to win transport grants they would otherwise have been unable to secure such as a bid for new green, environmental buses.</p> <p>In the longer term, extending the tram network and the subsequent tram P&R, upgrading the railway station, reducing peak period congestion and environmental improvements are likely to make Nottingham a better place to live and work.</p>		<p>policy as the WPL contributes 'to the promotion of a more efficient use of the transport network, lower emissions, higher densities and better, more inclusive urban design' (Marsden, 2006).</p> <p>Impact not fully known until the full package is delivered and a formal evaluation conducted.</p>
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9.3.3 The issues associated with the design and implementation of a WPL scheme

When designing and implementing a WPL scheme, consideration is required with respect to understanding the number of liable spaces, exemptions, equity, the propensity for parking to displace, the need to simplify the scheme to aid enforcement, the availability of good public transport prior to introducing the scheme as well as the decision and potential issues associated with holding a Referendum (section 5.5; 7.4; 7.5). These factors mean that whilst parking policies may be viewed to be less complex and administratively easier than a RUC (Acutt and Dodgson, 1997), area wide parking strategies are by no means simple. What's more, some of these factors can also conflict given that whilst exemptions can help improve acceptance of a WPL, they can also make the scheme more complex which can increase the enforcement and operational costs of the scheme; balance is therefore required.

An additional concern with the design of a WPL is that because it is not an optimal solution for reducing congestion, individuals and employers are likely to be affected disproportionately by both the benefits and costs. Moreover, a WPL can receive further negative attention because it can be easy for an employer or motorist to quantify the cost based on the price of a parking space whilst the benefits are less tangible given the difficulty of quantifying improved congestion, an extended tram network, or improved local air quality (section 5.5). For this reason, it is important that once a decision has been made that a WPL is the right approach for a given area, Local Authorities need to communicate the benefits a WPL would deliver and maintain 'backbone' with introducing the scheme with the view that the short term concerns are likely to reduce. These issues include the initial employer administrative burden as well as the potential disruption caused by installation works associated with the transport investment. Following on from this, whilst a major deliverable can boost acceptance through visibility of the money being spent (Rye and Ison, 2005), it can also cause potential frustration in the short term such as the negative impact on congestion caused by installation works.

Whilst the initial WPL revenue may be important to improve local transport, the acceptance of a scheme can be improved if a lower charge is initially applied which is increased once the scheme is embedded. Whilst a lower charge is likely to have a reduced impact on congestion, this approach places greater emphasis on a WPL initially raising revenue to realise local transport improvements before the focus can then change to reducing the parking supply in future years by increasing the WPL cost.

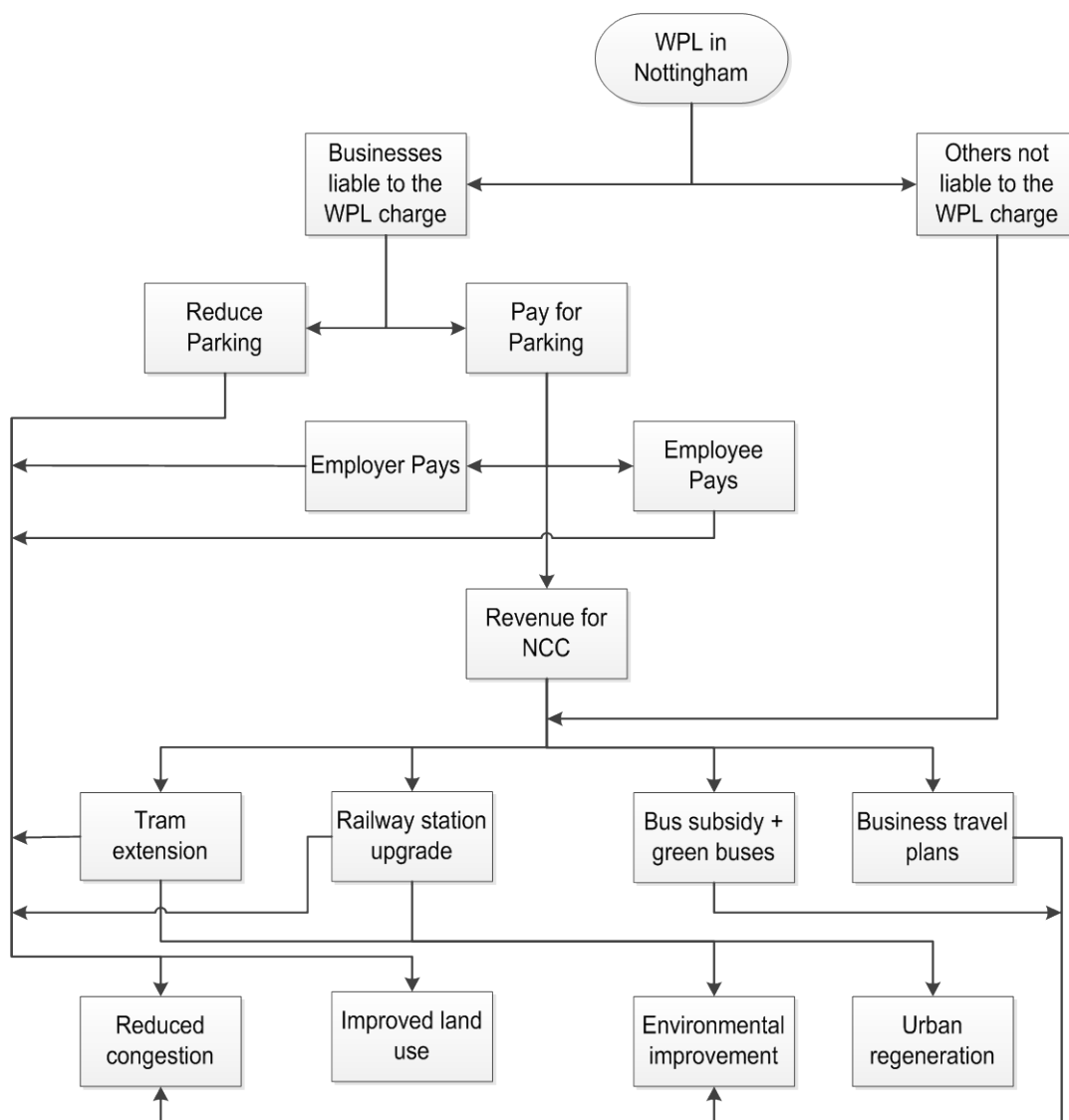
9.3.4 The likely impacts of a WPL scheme

The short term issues associated with the Nottingham WPL include the employer's administrative burden as well as a negative impact on congestion caused by the installation works associated with the tram (section 7.6.1). These issues however were expected to reduce over time. Other respondents however had a more positive short term view in that the WPL had already led to an increase in public transport use and had been 'embedded as business as usual' on the basis that a number of businesses had moved in to Nottingham and there had been no drop in enquiries. The reason for this was because businesses place a greater emphasis on other factors, such as accessibility, when deciding where to locate ahead of the operational costs of a site (section 6.7). This view therefore provides some evidence to contradict the view that a WPL can lead to a negative business impact (Enoch and Ison, 2005).

It was also identified that some employers quietly supported the introduction of the WPL as it could be used as a catalyst for employers to bring in parking strategies at the workplace to reduce the cost of supplying free parking for employees and indeed in some circumstances raise money (section 7.6.2). The WPL also facilitated NCC with introducing a wider parking strategy as the council will introduce two new Tram P&R sites in the future and have already encouraged businesses to implement shared parking, travel plans and car park management schemes to reduce the issues associated with free parking workplace. These wider strategies could therefore be expected to deliver further benefits to peak period congestion particularly because of the non-linear behaviour of congestion whereby small reductions can deliver big benefits (Markoff, 2012). Therefore whilst the formal DfT evaluation will give a more complete view as to the impact of the full WPL package, the short term and expected impacts of the WPL identified in this thesis could suggest that NCC have designed an effective parking policy given that the WPL is likely to contribute 'to the promotion of a more efficient use of the transport network, lower emissions, higher densities and better, more inclusive urban design' (Marsden, 2006, p448).

The WPL has also allowed NCC to lever significant amounts of revenue to improve local transport such as the extension to the tram network which is expected to deliver wider benefits outside of transport given that the investment is likely to make Nottingham a more attractive place to live and work (section 7.3). The complexity of the wider impacts of the WPL in Nottingham is demonstrated by Figure 9.1.

Figure 9.1 – WPL Outcomes in Nottingham



This diagram presents the multiple areas impacted by the WPL in Nottingham as well as the benefits the scheme will deliver regardless of how the cost is managed. It also indicates how people unaffected by the levy, experience all the benefits without the charge; these include visitors, shoppers, residents, employees where the charge is not passed on as well as employers with less than ten parking spaces. This diagram also supports the claim made by Markoff (2012) that it can be better if the policy does not change all motorists' behaviour due to the requirement of funding from the parking charges for the policy to meet all of its objectives. Although these results are limited to the Nottingham WPL, lessons can still be learnt which will be elaborated on in Section 9.4.

9.4 Implications for the Policy Transfer Framework

This section will cover the research questions that were identified from the theoretical framework identified in Chapter 3 to understand the role of Policy Transfer with the WPL as it was identified that 'there is little tradition of studying the process of the development and transfer of policy ideas' (Marsden, 2011). First, it will attempt to understand the main concerns of local authorities seeking to implement a WPL (section 9.4.1), the future role of a WPL as a transport policy instrument (section 9.4.2) as well as the lessons that can be / have been learnt from authorities that have introduced a WPL (section 9.4.3). Table 9.3 describes the key findings of the literature, Nottingham sub-case study and National sub-case study whilst the following sub-sections elaborate on the key points made.

9.4.1 The main concerns of local authorities seeking to implement a WPL

Respondents from the Nottingham sub-case study thought political stability would be an issue for other authorities interested in a WPL due in part to the fact that the implementation and benefits of a full WPL package are unlikely to be realised in a single term in office (section 7.7). Less than half of the Councillors and Officers surveyed however stated a lack of political stability as a concern which could be due in part to the fact that some of the costs fall on motorists who reside outside of the administrative area whereas the benefits are most likely to be felt by a council's electorate (section 8.5). Accordingly, respondents from County Councils were more concerned with political stability as it could be expected that a greater proportion of their voters are likely to have to pay the charge whilst respondents from London Boroughs were less concerned which could be because of the narrower boundaries which mean more people are likely to commute from another jurisdiction. Further political issues include the influence previous policy decisions can have on future policies given that Greater Manchester indicated they were nervous about implementing a WPL following the previous failed Referendum for congestion charging (section 8.7).

Although respondents from NCC were reassured with respect to the impact a WPL would have on business from experiences gained from Australian parking levies (section 7.4.1), the potential negative business impact was a concern for other authorities (section 8.5). This was in addition to other concerns such as the short term impact, the enforcement of such a scheme and a general lack of support for the principles of the WPL such as employers being responsible for funding local transport as well as paying the full cost of the levy. Local authorities were also less likely to consider introducing a WPL if they were concerned with the long term impact and enforcement of the WPL and therefore the

forthcoming DfT evaluation should focus on easing these concerns particularly if it is the Government's intention to promote the WPL. This focus should therefore promote lessons from schemes in the UK due to the preference for Local Authorities to understand policies similar to their own context as opposed to learning lessons from overseas as was the case with NCC and Perth.

Despite these concerns, Officers and Councillors from some authorities were less concerned with many of the issues raised which therefore suggests that certain authorities are more likely to introduce a WPL as such a scheme may be more suitable to some locations compared with others. Examples include authorities that view a reduction in the supply of parking as an acceptable measure for reducing congestion as well as authorities with narrower political boundaries.

Table 9.3 – Policy Transfer Research Questions

Research Question	Transport / Policy Transfer Literature	Nottingham Case Findings	National Case Findings	Key Points
What are the main concerns of Local Authorities seeking to implement a WPL?	<p>The benefits from transport investment are sometimes not delivered in a single term of office (Enoch et al, 2004).</p> <p>Complex schemes can reduce acceptance (Ison and Rye, 2005).</p> <p>Difficulty of introducing policies into a context full of past commitments (Rose, 1993) based on lessons from a previous time following an earlier policy decisions (Marsh and Evans, 2012a).</p> <p>'Parking policy is a sensitive area for employers, the retail sector, residents and thus politicians (Ison and Rye, 2006).</p>	<p>A lack of political stability could act as a barrier to further schemes as NCC benefited from political stability and were not destabilised by successive elections.</p> <p>Further political difficulties in that the benefits are unlikely to be delivered in a single term of office.</p> <p>The costs and benefits advantageous in that some of the costs would fall on motorists that reside outside NCC's administrative boundary whilst benefits are likely to be delivered to an authorities electorate.</p> <p>Difficulties of understanding the number of liable spaces for enforcement and compliance reasons.</p> <p>Concerned about impact on business but were reassured from previous experiences in Australia (section 9.4.3)</p>	<p>Only 40% of Councillors and Officers stated political stability as a barrier for introducing a WPL.</p> <p>County council respondents were most concerned with political stability and London Boroughs the least.</p> <p>Greater Manchester is nervous about implementing a charging scheme following the previously failed referendum for congestion charging.</p> <p>Over 70% of Councillors and Officers were concerned with compliance, the cost of implementation, enforcement, equity, impact on business, displaced parking as well as the short and long term impact if a WPL was introduced.</p> <p>Although 75% of Councillors and Officers supported the principle that the revenue should be hypothecated to fund local transport, only 32% of respondents believe employers should fund local transport and 24% believe employers should pay the full cost of the levy.</p> <p>Respondents concerned with the long term impact and enforcement of a WPL were less likely to introduce a scheme</p> <p>Respondents were more likely to introduce a WPL if they viewed a reduction in the supply of parking as an acceptable measure for reducing</p>	<p>County councils are more concerned with political stability because they could expect a greater proportion of their voters to pay the charge whereas political stability was less of a concern for London Boroughs which could be because of narrower boundaries which mean more people are likely to commute from another jurisdiction.</p> <p>A large proportion of respondents were concerned with issues such as the short term impact and enforcement as well as a lack of support for the principles of the WPL.</p> <p>Despite this, approximately a quarter of Officers and Councillors were less concerned with the issues which could suggest a WPL may be appropriate for certain locations. For example, London Boroughs were more likely to support the principles of the WPL and also viewed the WPL to be more effective and acceptable.</p> <p>Formal evaluation should consider the long term impacts as well as the enforcement of a WPL as authorities are less likely to introduce if these are concerns.</p> <p>A more positive view of parking policies is likely to lead to further adoption of WPLs</p> <p>Although some concerns appear illogical, these could be the areas of greatest concern for authorities interested in a WPL</p>

			<p>congestion as well as if they would introduce a WPL to reduce congestion.</p> <p>Authorities concerned with the short term impact, political stability and identifying the boundary where a WPL would apply were more likely to introduce a WPL</p>	<p>and could therefore require focus in the formal evaluation.</p> <p>Previous policy decisions can have a bearing on future policies.</p>
<p>What future role does a WPL have as an urban transport policy instrument for local authorities?</p>	<p>Congestion is likely to remain a problem for a number of years (Ison and Wall, 2003).</p> <p>Effectiveness of parking strategies reduced by a lack of control over PNR parking (Enoch and Ison, 2005).</p> <p>Local authority policies viewed as experiments (Brenner and Theodore, 2002).</p> <p>Understanding policies can take years and 'the learning effect is unlikely to fade quickly' (Shipan and Volden, 2008).</p> <p>Policy Transfer actors prefer to copy policies from locations with a similar language, culture, constitutional system, economic structure and close geographical proximity (Marsden and Stead, 2011).</p> <p>'Parking policy may not be</p>	<p>Importance of leverage for the Nottingham scheme could make other proposed WPL schemes dependent on Government funds being available in addition to the WPL revenue.</p> <p>WPL is likely to have a significant future role on the basis that many authorities share similar problems to Nottingham such as congestion, a desire to improve the environment and a need to raise revenue to fund local transport improvements particularly given the increasing strain placed on local funding.</p> <p>A WPL could also act as a precursor to a RUC scheme.</p> <p>Further schemes expected given that NCC have simplified the legislation for introducing such a scheme and that the risk of introducing such a scheme had been reduced as an authority would no longer be the first which would make issues surrounding the scheme more familiar.</p>	<p>Given the problems associated with congestion and a lack of control over private parking, Government estimated there would be as many as thirty parking levies in the first five years.</p> <p>The evaluation of the Nottingham WPL is very important as it is likely to influence local authorities to introduce a WPL or not as well as Governments decision as to whether to recommend further adoption or apply similar schemes to other types of parking.</p> <p>Evaluation of particular importance as any lessons are unlikely to fade quickly.</p> <p>Dependent of the view of Government with respect to whether to approve schemes based on the requirement for business support, the delivery of triple win outcomes and hypothecation of revenue. This is important because a Transport Select Committee suggested more schemes could have been introduced if Government had provided local authorities with more genuine support by acting as an 'enabler or leader' and publicly supporting the WPL.</p> <p>One civil servant however said that it was</p>	<p>Likely that additional WPL schemes will be introduced following the Nottingham WPL because of the significance of the issues associated with congestion and private parking, the environment, the need for revenue as well as a desire to not fall behind neighbours and competitors.</p> <p>This is particularly the case given that Nottingham have reduced the risk of being the first which mean other authorities can learn lessons from a similar context and could use the WPL as a precursor to a RUC.</p> <p>WPL unfamiliar and the pilot program in Nottingham is likely to reduce scepticism and increase awareness of a WPL and therefore may lead to more schemes. This highlights the importance of 'first mover' authorities on a national level when new policies are being adopted.</p> <p>This familiarity and reduced scepticism is likely to be enhanced by additional schemes on the basis that the introduction of the WPL in Nottingham only made the scheme slightly more attractive whilst if other authorities adopt such a scheme, authorities indicated that the WPL would be significantly more attractive which</p>

	<p>theoretically appealing but it is practically essential ... [and that] parking policy will rise in importance over the coming decades as car ownership continues to grow' (Marsden, 2006).</p> <p>Local authorities may be coerced into introducing a policy if it is perceived to be falling behind a competitor (Dolowitz and Marsh, 1996).</p> <p>'Unfamiliarity may explain some scepticism about performance parking prices, and only the experience gained in pilot programs will change minds' (Pierce and Shoup, 2013)</p> <p>'Action often springs from new opportunities, not from 'problems' at all' (Ison, 2004, p59).</p>		<p>local schemes for local problems and it is local authorities decision to initiate and introduce a scheme.</p> <p>If Government supports a WPL, it could bribe local authorities to introduce such a scheme in order it for to receive funding.</p> <p>Although a WPL was identified to be one of the least effective and acceptable measure for reducing congestion, ten respondents stated their authority would consider introducing a WPL in the next five years and twenty-three in the next ten years. This was to address issues associated with congestion, the environment and to raise revenue.</p> <p>Less than 10% of Officers and Councillors stated that the introduction of the Nottingham WPL had increased the attractiveness of the measure.</p> <p>If a WPL is introduced in another location in addition to Nottingham; just under half of the national survey respondents would view the WPL to be more attractive.</p>	<p>suggests that if only one authority has implemented a policy, it still may be viewed as unique to that context particularly when no evaluation has been made. If however additional authorities introduce the policy, it encourages other authorities to adopt the measure through a perceived 'safety in numbers' view.</p> <p>Whilst WPL viewed to be one of the least effective and acceptable measures for reducing congestion, 23 respondents are likely to consider introducing a WPL in the next ten years which supports the view that whilst parking policies are not theoretically appealing, they are practically essential (Marsden, 2006).</p> <p>If the evaluation of the Nottingham scheme supports the recommendation of further schemes, Government should provide additional support to interested authorities such as by ensuring additional revenue is available for local authorities to leverage in if a WPL is introduced.</p>
What lessons can be/have been learnt from authorities that have already introduced a WPL?	<p>'There is little tradition of studying the process of the development and transfer of policy ideas' (Marsden, 2011).</p> <p>Actors can engage in Policy Transfer to generate support or legitimise a policy (Marsden et al, 2012) as well as import best practices, or how to do it,</p>	<p>NCC respondents (and DfT civil servant) indicated Nottingham had a vision to be similar to other leading European cities (Strasbourg and Munich) by developing a cafe culture and tram network / transport that was reflective of best practice.</p> <p>NCC decided on the WPL and then searched for similar policies in order to generate support and guidance.</p> <p>The Perth parking levy scheme leader gave</p>	<p>DfT found that in London, if employers with 10 or less spaces were exempt, 60% of employers would avoid the charge but only 15% of the spaces would be lost in revenue. The trade-off therefore between the additional administration, enforcement difficulties and revenue meant NCC exempted these employers.</p> <p>NCC learnt a lesson from the London congestion charge in that applying a 100% discount as opposed to an exemption</p>	<p>The WPL in Nottingham is a 'hybrid' transfer as it combines multiple transfers; (1) a 'vision' transfer to compete with leading European cities with tram networks; (2) engage with Perth to generate support and understand how to implement a WPL; (3) details from DfT with respect to the operation and implementation of the scheme.</p> <p>Politicians used Policy Transfer to capture the vision, to provide reassurance and to</p>

	<p>from other cities (Hoyt, 2006).</p> <p>International experts can move in a staff transfer (Stone, 2012).</p> <p>Political actors can influence Governments to consider adopting certain policies by selling schemes (Stead et al, 2008).</p> <p>'If travel, including policy travel, is to be understood as productive rather than 'dead' time, ethnographic research – being with delegations on trips elsewhere, in meetings, and on site – is needed...in order to better apprehend how exactly such time is productive for urban policy-making' (McCann, 2011).</p>	<p>'key' presentations to convince senior NCC staff that the WPL was the right approach and to alleviate fears of being the first and the potential negative business impact.</p> <p>Further communication and a staff transfer provided NCC support with implementation (business case, simplify the scheme, exemptions) and operation (penalties, enforcement) of a WPL.</p> <p>A few respondents suggested there was little benefit of the support from Perth because of differences with the legislation and details of the schemes.</p> <p>Despite equity concerns with lower income earners paying the WPL, NCC stated that it was the employer's responsibility to manage who pays the cost as well as the proportions in which employees should be expected to pay. This made the scheme simpler for NCC and minimised the enforcement and administration cost for the council.</p> <p>Difficulties with understanding the number of liable spaces and therefore recommended using numerous approaches including surveyors, planning applications and business rates and exempting employers with eleven or more spaces from the levy so fewer employer details are required to reduce the administrative complexity.</p> <p>Work in collaboration with employers by offering support such as help with travel plans and setting the penalty for non-compliance at a level to act as a sufficient deterrent.</p>	<p>would allow greater flexibility to change the exemption criteria at a later date should NCC wish to do so.</p> <p>Secretary of State recommended a six month lead period where the WPL was introduced without charge to solve any issues that were raised.</p> <p>Government will 'market' the WPL to other authorities in attempt to encourage further adoption if the WPL is deemed a success in the formal evaluation. NCC were also identified to be actively marketing the WPL to encourage other authorities to adopt the scheme.</p> <p>The evaluation is likely to lead to positive or negative lessons.</p> <p>There was more Government support at the bureaucrat level for the specific policy details than there was political support.</p> <p>If an authority were to introduce a WPL, more than 80% of the respondents stated they would seek support introducing a WPL from local authorities in the UK that have already implemented such a scheme, but only 30% would seek help from foreign locations.</p>	<p>alleviate fears surrounding the threat of businesses leaving whilst NCC Officials used it to understand how to best manage and introduce the issues associated with introducing a parking levy; these lessons came from different locations.</p> <p>The different view of NCC respondents with respect to whether the transfer of information from Perth was beneficial provides support for the difficulty of tracing transfer in Policy Transfer studies identified in the State of the Art review.</p> <p>NCC recommended keeping the scheme simple despite equity concerns, methods to understand the number of spaces as well as to collaborate and communicate with employers to ease enforcement and improve compliance. This is because a collaboration approach helped NCC obtain information of the number of parking spaces employers had and helped NCC obtain 100% compliance and no penalty notices issued in the first two years.</p> <p>Government recommend a six month lead period to smooth WPL introduction.</p> <p>Two levels of Government are likely to market the WPL to other authorities.</p> <p>The difference between the number of respondents that would seek support from UK schemes compared to overseas parking levies indicates the preference to learn lessons from locations with similar contextual circumstances and how Policy Transfer can occur within a nation.</p>
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9.4.2 The future role of a WPL as a transport policy instrument

The findings in this thesis indicate additional WPL schemes are likely to be introduced because of the issues associated with congestion in certain locations and the problems caused by a lack of control for Local Authorities over PNR parking, the need to raise revenue following an increased strain on local finance as well as the growing importance of delivering environmental improvements. These issues are particularly prevalent given the fact NCC has introduced a measure that is raising significant amounts of revenue to address these concerns which could therefore lead other authorities to adopt a WPL in an attempt to avoid falling behind their neighbours and competitors (Dolowitz and Marsh, 1996).

The risk of introducing a WPL was also identified to have been reduced as an authority would no longer be the first in the UK and authorities could learn lessons from a similar context (section 7.7). This is because the experiment of the WPL in Nottingham is likely to reduce scepticism and make a WPL more familiar in the UK which can help change people's views with respect to a given policy (Pierce and Shoup, 2013). The familiarity and reduced uncertainty however is likely to be enhanced if additional schemes are introduced given that the WPL in Nottingham has made the scheme only slightly more attractive whilst if additional schemes were introduced, a larger proportion of respondents indicated that a WPL would be more appealing. This suggests that a policy may still be viewed as unique within a nation if only one authority has implemented a policy particularly before an evaluation is been made whereas if additional authorities introduce the policy, it then becomes more attractive through a 'safety in numbers' view.

Despite this, the 'first mover' authority within a nation is important to reduce the unfamiliarity of a scheme given that following the introduction of a parking levy in Sydney, three other Australian cities introduced their own schemes. Indeed if this experience is repeated in the UK, as is suggested by the respondents, one might argue that the decision of NCC to introduce a WPL could have an impact far beyond the boundaries of the Nottingham scheme and help address the issues associated with peak period congestion caused by free workplace parking in cities across the country as additional WPL's are implemented.

Whilst Officers and Councillors viewed the WPL to be ineffective and unacceptable for reducing congestion (section 8.3), 23 respondents indicated that they are likely to consider introducing a WPL in the next ten years (section 8.7). This supports the view of Marsden (2006) that 'parking policy may not

be theoretically appealing but it is practically essential ... [and that] parking policy will rise in importance over the coming decades as car ownership continues to grow'. This could therefore mean that the WPL has an increasing role in the UK as a transport policy instrument particularly as it was identified as a measure that could provide the revenue to improve local transport and therefore act as a precursor to implementing a RUC.

Future schemes however are dependent on the results of the formal DfT evaluation of the Nottingham experiment (Brenner and Theodore, 2002) as this is likely to influence the decision as to whether Local Authorities should introduce a WPL as well as if Government should recommend such schemes or apply similar policies to other types of parking. The results of the evaluation are of particular importance given that 'the learning effect is unlikely to fade quickly' which could affect the uptake of WPL's for a number of years (Shipan and Volden, 2008, p844). This evaluation however, will be completed no earlier than the 2016/17 financial year following the delivery of the full WPL package which supports the view that it can take years for the effectiveness or consequences of policy to be realised (Shipan and Volden, 2008) (section 3.4.6).

The results in this thesis have highlighted that the major fears and concern surrounding the business impact have not materialised thus far in Nottingham and instead the WPL has delivered a number of benefits for NCC such as the introduction of employer travel plans and car park management schemes as well as revenue to invest in local transport (section 6.7). If the formal evaluation therefore proves the WPL to be a success in Nottingham, other authorities are likely to be further encouraged to adopt such a scheme if Government ensures all the revenue in future years remains hypothecated for local transport as well as if funds are made available for councils to lever in to help deliver major transport projects. An additional view that could lead to the WPL having an increasing role as a transport policy instrument is that Government may hold back funding for a project and 'bribe' local authorities to introduce such schemes as a prerequisite for funding for a transport project to be granted (section 5.5).

9.4.3 Lessons that have been / can be learnt from authorities that have already introduced a WPL

The WPL in Nottingham is a 'hybrid' transfer given that NCC combined a 'vision' transfer to compete with leading European cities with tram networks; engaged with Perth to generate support and understand how to implement a WPL as well as lessons from the DfT surrounding the scheme design. Specifically, NCC politicians used Policy Transfer to capture the vision, to provide reassurance and to

alleviate fears with regards to the threat of businesses leaving whilst NCC Officials used it to understand the details of how to best manage the issues associated with introducing a parking levy. Communication and a staff transfer from Perth supported NCC with the implementation (business case, simplified scheme, exemptions) and operation (penalties, enforcement) of the scheme whilst lessons from the DfT meant Nottingham exempted employers of a certain size to make enforcement easier and applied a 100% discount to provide NCC more flexibility should NCC wish to later change the exemption criteria (section 7.4.1). This therefore provides some indication and evidence of the benefit of engaging in Policy Transfer for urban policy-making (McCann, 2011) given that Officials identified methods to improve the effectiveness of the implementation and operation of the scheme whilst politicians were provided reassurance that their initial fears were unlikely to develop if a parking levy was introduced.

NCC highlighted a number of recommendations for other authorities interested in a WPL such as the methods used to understand the number of liable spaces, ensuring the scheme is simple as well as the importance of collaborating and communicating with employers to improve enforcement and compliance once the scheme is introduced (section 7.4.4). Moreover, it is also thought to be beneficial for future schemes to have a lead-in period before charging begins to remedy any licensing issues.

The findings also highlighted the importance of learning lessons from English authorities with a WPL compared to overseas schemes which supports the preference for authorities to learn lessons from locations with similar contextual circumstances (section 8.6). Accordingly, the results of the Nottingham 'pilot' are of significant importance due to the fact any English authorities interested in a WPL are likely to transfer lessons from the DfT evaluation whether that message is positive (local authorities adopt a WPL) or negative (local authorities differentiate from Nottingham). Until then however, it was identified that NCC are attempting to market the scheme to encourage other authorities to adopt a WPL whilst Government are likely to adopt a similar stance if the evaluation deems the Nottingham scheme a success.

The difference in the views between NCC respondents with respect to if Policy Transfer occurred with the Nottingham scheme as well as its benefit highlights the difficulty of tracing transfer in Policy Transfer studies (7.4.1). For the Nottingham WPL however, Policy Transfer did occur and was of great importance to the implementation of the scheme with respect to convincing senior officials, even if it was not identified to be of use to all NCC officials. Table 9.4 provides a summary of Policy Transfer using the questions from the original framework for the Nottingham WPL.

One interesting result is the difference between the factors that facilitate a successful transfer identified in the original framework and the WPL in Nottingham. This is because Dolowitz and Marsh (1996) suggested that to improve the chances of a successful transfer there should be a single goal to the programme; a simple problem which needs solving; a direct relationship between the problem and the solution; fewer perceived side-effects; detailed information available as to the operation of the programme; and outcomes which are easily predicted (section 3.4.6). With the exception of some details with respect to the operation of a parking levy, the Nottingham WPL does not satisfy any of these criteria due to the complexity of the scheme. NCC therefore transferred and applied the lessons learnt effectively when introducing the WPL although other interested authorities need to be aware of the complexity of the scheme and therefore recognise the difficulties of transferring such schemes.

Table 9.4 – Policy Transfer in Nottingham

Policy Transfer Questions	Nottingham WPL
Why do actors engage in Policy Transfer?	To generate a vision to become like other European cities with trams To generate support and reassurance WPL was right To develop the details with regard to the design and operation of the scheme
Who is involved in the Policy Transfer process?	NCC Councillors and Officers City of Perth Councillors and Officers DfT and TfL Officers
What is transferred?	A vision to have a tram network and cafe culture like other European cities Comfort for politicians as it was identified NCC shared similar fears with the Perth parking levy and these fears did not materialise in Perth Design, operation, implementation and legislation details of the scheme Staff transfer as a parking levy expert transferred from Perth to Nottingham
From where are lessons drawn?	Horizontal transfer from European cities to generate a vision of city transport outside a capital city in a similar context, cities included Munich and Strasbourg Horizontal transfer – Perth for details of introducing a parking levy (as well as Vancouver and Sydney from documentation although never highlighted in interviews) which are different contexts although some similarities such as language Vertical transfer - DfT and TfL for details of charging schemes and legislation
What are the different degrees of transfer?	The Nottingham scheme is between inspiration and a hybrid. This is because it was inspired to be like other European cities but combined policies and lessons to form a hybrid including lessons from Perth and the London Congestion charge as well as a policy from the DfT
What restricts or facilitates the policy transfer process?	Facilitated by improved global communication by obtaining support from Australia and resources available to fund a secondment of parking levy expert Restricted by different contexts and legislation <i>(additional information above with regards to the success of the transfer)</i>
How successful is the policy that is transferred?	Policy Transfer undoubtedly helped NCC introduce the WPL and was therefore successful at the design and implementation level The policy however needs to be evaluated against its initial objectives once the improvements are realised although thus far, the Nottingham WPL has facilitated the financing of the transport improvements with few short term issues.

In addition to the lessons learnt by NCC, further transfers have been identified in this thesis. First, Government temporally transferred the idea of a parking tax that was scrapped by Government in 1988 to develop the legislation to allow local authorities to introduce a WPL (section 5.2). Second, Government had the intention to use the results of the evaluation of the WPL to decide if further levies should be applied to other types of parking such as that at out-of-town shopping centres. Third, was that the UK Government explores global policies and best practices when developing White Papers (section 5.5). Fourth was that parts of the WPL legislation was copied from the RUC legislation which

was identified to have made introducing a WPL more difficult for NCC and fifth it has identified how authorities are influenced by past decisions such as the reluctance of Greater Manchester to propose future charging schemes following the failure of the RUC Referendum (section 8.7).

Chapter 10: Conclusion

10.1 Introduction

This chapter draws together the research by presenting its significance and the implications for the future role of the WPL. First, the findings will be summarised in the context of the research aim and objectives. This will be followed by recommendations for policy makers and practitioners, contributions to knowledge, the limitations of the research and areas of potential further research.

10.2 Summary of Findings

This section details how the aim of the research has been achieved using the objectives set out in Chapter 1. The aim of the research was '*to investigate the transferability of the Workplace Parking Levy as a transport policy measure*'. To this end, the research has analysed the WPL in order to understand the implementation of the Nottingham scheme (the first such scheme in England) as well as the national perspective both for UK Government as well as English local authorities with the power to introduce such a scheme.

Objective One: To identify the issues associated with parking policy

The literature review reported that whilst parking policies were viewed as a second best alternative for reducing congestion for reasons such as not addressing through traffic, they can still deliver significant benefits. The effectiveness of local authority parking strategies however is reduced due to a lack of control over private non-residential parking, particularly at the workplace due to the significant impact commuters have on peak period congestion. Moreover, it was also found that there was an absence of research with respect to parking levies in the UK; a measure designed to address a lack of control over parking at the workplace. Researching this policy was important since not all parking policies address the problem area of workplace parking and a WPL had the potential to be a successful parking strategy since it affects commuters without impacting visitors (Shiftan and Golani, 2005).

Objective Two: To explore the role of Policy Transfer with respect to the WPL policy

Policy Transfer was adopted as the theoretical underpinning for this thesis and has been developed following five interviews with leading authors in the field as well as the application of the framework to the WPL in the UK. Despite contrasting views in the literature, this thesis has demonstrated that Policy Transfer can occur at the sub-national level between Local Authorities as was the case between Nottingham and Perth (Australia) as well as within a nation due to the lessons NCC learned from the DfT and the likelihood of other authorities seeking support from existing UK schemes (such as the Nottingham WPL), if they consider the introduction of their own WPL. Following on from this, it has also identified the importance of a 'first mover' authority in a country to familiarise a policy with other authorities in order to support the transfer within a nation. This is of particular importance due to the fact that future schemes as well as levies on other types of parking are likely to be significantly influenced by the results of the evaluation of the Nottingham WPL. Moreover, whilst Policy Transfer is traditionally associated with adopted policies, Policy Transfer will be used in the UK for the Nottingham WPL as the evaluation of the scheme is likely to have either a positive (adopt a WPL) or negative (do not adopt a WPL) influence on future schemes, thus being classed as Policy Transfer.

This thesis has also demonstrated the difficulties of understanding the role of Policy Transfer when a policy is introduced due to the different views of NCC respondents as to whether support was acquired as well as its usefulness (section 7.4.1). In addition, it has provided further evidence of the complexity of some transfers due to the number of locations lessons can be drawn from when a 'hybrid' policy is introduced. It has also distinguished differences between what different actors transfer in that for the WPL, politicians used Policy Transfer to capture the vision as well as to generate support and alleviate fears surrounding the introduction of a scheme whilst Officers used it for details surrounding the operation and implementation of the scheme. This provides evidence as to the benefit for policy makers and practitioners engaging in Policy Transfer.

Objective Three: To examine the views of key stakeholders with respect to the introduction and operation of the WPL in the City of Nottingham

The views of key stakeholders in Nottingham were that the WPL was introduced to raise the local contribution necessary to fund the extension to the tram network. However whilst this was the primary reason, a large proportion of the respondents recognised that the WPL would deliver wider benefits that would make Nottingham a more attractive place to live and work; these include a reduction in

congestion, an environmental improvement, investment into local transport as well as the adoption of wider parking strategies such as shared parking and employer travel plans (section 6.7; 7.3). Whilst there were issues in the short term associated with an increased administrative burden and issues on the road network associated with the installation of the tram, there was a more positive view with respect to the long term impact of the scheme which was due in part to the fact that the potential negative business impact had not materialised thus far (section 7.6). Moreover, whilst it was recognised that the WPL delivers disproportionate benefits and costs to different stakeholders and is therefore not fully equitable in all circumstances or the optimal transport measure, political advantages associated with who pays the levy and where the benefits are delivered mean that the WPL could be viewed to be advantageous in certain locations.

Objective Four: To understand the views of key stakeholders with respect to the WPL in the UK

Although Government recognised the influence free workplace parking had on peak period congestion, a RUC was favoured over a WPL. Despite this, Government accepted that a WPL may be more appropriate than a RUC for certain areas and therefore granted power to Local Authorities to introduce such a scheme. Whilst a lack of political support was cited as the reason as to why more schemes were not adopted, the nature of such schemes mean that it is a local decision to deal with a local problem. Accordingly, it is thought that the issues associated with congestion were not deemed significant enough in many areas to warrant the introduction of the WPL given the uncertainty and risk associated with the introduction, operation and impact of such a scheme. However whilst it is viewed to be one of the least effective and acceptable measures for reducing congestion, 23 authorities indicated that they are likely to consider introducing the scheme in the next ten years which suggests that the Nottingham WPL has made the scheme more familiar and therefore reduced the risk and uncertainty of introducing such a measure (section 8.7). The number of future schemes however is likely to be dependent on the formal evaluation of the Nottingham scheme undertaken by the DfT due to the influence it is likely to have on Government as well as authorities that have shown an interest into a WPL (section 5.3).

Objective Five: To develop recommendations for policy makers and practitioners for implementing a WPL

The recommendations are described in Section 10.3.

10.3 Recommendations

Research objectives 1-4 have been considered throughout this thesis and have been covered in the preceding section. These findings have generated substantial evidence to address research objective 5; that is *'to develop recommendations for policy makers and practitioners considering the implementation of a WPL'*.

10.3.1 Recommendations relevant for policy makers

The findings in this thesis have highlighted that WPL schemes are complex, as was the case in Nottingham, and can take years to develop and introduce. To this end, this section will provide recommendations for policy makers that may provide support with the implementation of a WPL.

Political Consideration

A WPL may be better suited and experience higher levels of acceptance politically, in locations with narrow political boundaries as it could mean a large proportion of commuters travel from outside of the jurisdiction and therefore are ineligible to vote with respect to the authority introducing the scheme. Second, relates to the difficulties of who to ask, the weighting of the responses as well as issues caused by the rejection of a RUC scheme via the Manchester Referendum which indicates that Referendums for charging schemes are unlikely to ever get a 'yes' vote due to the nature of costs and benefits. For this reason, a consultation was identified to be better suited to gather the wider view. Moreover, whilst a WPL is likely to be introduced in a shorter timescale to that of the Nottingham scheme as an authority would no longer be the first, policy makers need to be aware that a WPL may take a considerable length of time to develop and therefore a firm approach when introducing a scheme is required. This can be facilitated however if an authority experiences political stability in order to allow a scheme to be developed strategically without becoming destabilised by elections and a change of political party.

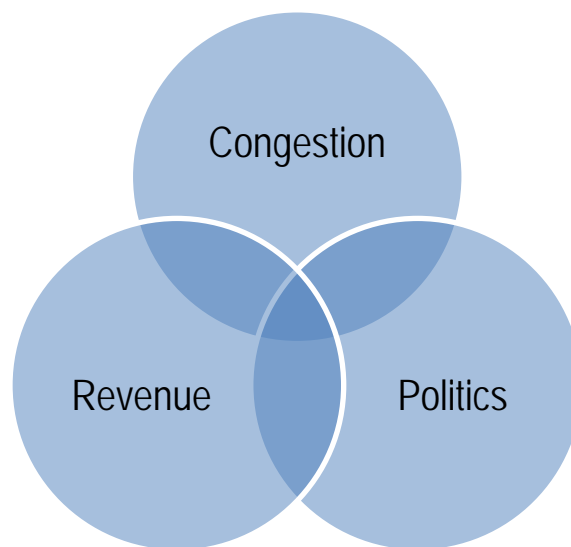
Justification and Acceptance

A WPL that resonates with the public is important in order to gain acceptance. This is because as a WPL is ultimately a demand management measure designed to reduce car use; the acceptance of such a scheme can be improved if the public recognises there is an issue with congestion where the charge is introduced particularly if the congestion is during peak periods and is primarily caused by commuters. Acceptance can also be improved if there is a good level of public transport in the area

prior to the introduction of the charge as well as if the scheme helps achieve a major tangible deliverable such as NET Phase Two in Nottingham as opposed to 'a few extra buses'. This is because it allows the public and importantly those that pay the levy to recognise the improvements that a WPL facilitates that otherwise would not be realised.

Figure 10.1 illustrates these factors as it suggests that a WPL is likely to be more acceptable if a Local Authority has a problem with congestion which is primarily caused by commuters, there is a need for revenue to fund a step change improvement to local transport as well as if the politics support it. This final factors includes political stability in case the implementation and benefits cannot be delivered in a single term of office, the existing levels of transport are at a sufficient level to provide an alternative to car use as well as if there is trust amongst the electorate that the Council will be able to deliver the improvements specified.

Figure 10.1 – Facilitators for introducing a WPL



Despite the need to deliver a step change improvement to transport, as the implementation of a WPL and the delivery of a major infrastructure project are unlikely to be realised in a single term of office, it is important to deliver quick wins by allocating revenue for other transport investment in addition to the major project. These initial quick wins can help politically as they can boost the acceptance of the scheme as you ensure the benefits are experienced by a higher number of affected stakeholders. Policy makers therefore need to consider these factors to ensure a WPL is appropriate for the area in which it is being introduced. The improvements to transport using the WPL revenue may also increase the acceptability of a RUC a later date.

A further benefit of a WPL is that by charging the parking provider as opposed to overtly aiming the charge at the motorist it can cause less conflict between the local authority and public as it is the employer's responsibility to manage if employees are required to pay for parking. This approach could therefore be a consideration for local authorities when designing future parking strategies. This thesis has also identified that in some instances, employers may privately support the WPL as it can act as a catalyst for them to introduce a parking charge at the site to reduce the employer cost of providing parking particularly if the parking charge at the workplace is more than the cost of the levy. Moreover, whilst an additional cost on business is likely to be unpopular with employers, the findings indicated that factors such as accessibility and the availability of good transport are viewed to be more important than the operational cost of the site. This could therefore indicate a WPL may be more appropriate for certain locations than policy makers may initially think.

Leverage

In order to fund these improvements, policy makers need to recognise the ability and importance of the WPL to lever additional funds. This is because the Nottingham WPL is providing less than a third of the revenue required for the two major deliverables in the City (NET Phase Two and Railway Station upgrade) which has meant the leveraged funds are vital for delivering the package of measures. This funding however is dependent on Government financially supporting further schemes which could be expected so long as WPL schemes are designed to achieve 'triple win outcomes'. Policy makers therefore need to recognise the wider benefits a WPL scheme can deliver as well as obtaining additional funds to supplement the WPL revenue.

Evaluation and Pilots

The formal evaluation of the Nottingham 'experiment' is of paramount importance as to whether future schemes are introduced as both Government and Local Authorities will base their view of the WPL on the success of the Nottingham scheme. Accordingly, this evaluation should attempt to provide support and evidence to address the concerns identified by Officers and Councillors such as details surrounding the long term impact as well as the enforcement of such a scheme. Due to its importance at reducing the uncertainty surrounding the WPL, it is also vital for Governments to support authorities that develop 'pilot programs' given that the future adoption of the WPL in the UK as well as policies for other types of parking such as a levy on out-of-town shopping centres, are likely to be significantly influenced by the results of the Nottingham 'pilot' scheme. Government could have therefore been more vocal in providing political support backing the WPL as well as ensuring the WPL legislation was

developed to make it easy for Local Authorities to introduce such a scheme as opposed to copying the legislation from the favoured RUC. Due to the issues associated with this final point, it is also recommended that Government make the guidance, regulation and legislation associated with introducing a WPL simpler and fairer for local authorities. Furthermore, if the WPL is evaluated as a success and Government are keen for other authorities to adopt such a scheme, revenue should be made available for Local Authorities to lever in funding to help deliver major transport projects as well making the introduction of a WPL a potential prerequisite for significant Council funding to be awarded due to the likely need for demand management measures in the future.

Policy Estimations

When estimating the number of authorities that will adopt a policy, Government should use realistic predictions based on a structured implementation program working in partnership with interested authorities as opposed to guesswork at short notice by a single official. This is because as 12 WPL schemes were 'estimated' to be introduced by 2010 a lack of schemes could lead to the WPL being perceived as a failed policy as the interest and number of schemes never met the initial 'forecast'. Moreover, if Government works in partnerships with these authorities, it is important it is recognised that local authorities place a greater importance on the revenue generation as opposed to viewing such a scheme solely as a congestion reduction measure.

Benefits of Policy Transfer

When Nottingham introduced the WPL, conversations with stakeholders from the Perth parking levy were vital in providing comfort and alleviating fears that such a scheme would not have a negative impact on that location. For this reason, presentations and discussions with actors that have already introduced a similar policy can therefore provide policy makers with support when introducing an unfamiliar policy. Whilst such lessons have proved correct thus far in Nottingham, other policy makers need to consider the lessons, specifically in their context, in order to understand if there are any differences that could lead to an alternative result. What's more, whilst it is likely to be beneficial for other UK authorities interested in a WPL to discuss such a scheme with NCC politicians, it may also be beneficial to draw lessons from the congestion charge in London as well as parking levies in Australia in order to ensure a scheme is appropriate for the new context in which it is introduced.

10.3.2 Recommendations relevant for practitioners

This sub-section will address the recommendations for practitioners with respect to the design and operation of a WPL. Whilst these are recommendations based on existing parking levies, a Local Authority needs to consider the application of each of these points to their context given that simply transferring 'a copy' of the Nottingham WPL is unlikely to be successful.

Exemptions

Whilst exemptions can improve the equity of a WPL, a recommendation was identified that Local Authorities should minimise the number of exemptions in order to ensure schemes remain simple. This was a lesson transferred from the Perth parking levy and was because if one exemption is made it can lead to a whole raft of further exemptions which can have a significant effect on the revenue that is generated. A recommendation was however made that an exemption is applied to the first few vehicles at a location as it reduces the administrative complexity of counting the spaces and enforcement as a large proportion of businesses are unaffected by the levy without having a significant negative impact on the total revenue raised. Moreover if a 100% discount is applied instead of an exemption, it provides greater flexibility with respect to changing the exemption criteria at a later date.

Cost of the Levy

The revenue for the first year of the Nottingham scheme was not as high as first estimated and although expected to average out over the life of the scheme, other local authorities need to be aware that the number of licensed spaces could be lower than initially estimated which can lead to less revenue than expected. The design of schemes therefore need to have flexibility with respect to the expected number of spaces and cost of a space each year in order to build a contingency to ensure that the finance required for the improvements is met. This is particularly important during the initial years when the scheme is scrutinised the most due to the perceived negative short term impact. A further recommendation is that having a lower initial charge can improve acceptance when the scheme is first introduced, which can then be later increased to raise additional revenue once the scheme has bedded in.

'Carrot' and 'Sticks'

Whilst a WPL that applies to the whole council area can simplify the administrative complexity and increase revenue, acceptance of such a scheme can be improved by ensuring improvements or

tangible benefits are delivered to all those that pay. These improvements ideally should be in addition to a reduction in congestion due to the difficulty for an individual to quantify and recognise these benefits. Despite this desire to ensure those that pay benefit, local authorities need to accept that some employers or motorists will benefit or be affected by the WPL disproportionately and therefore coupled with the desire to keep the scheme simple, at some point need to press forward with the scheme.

Compliance and Enforcement

The compliance and enforcement of a WPL can be improved if a Local Authority collaborates and works closely with employers whilst the scheme is being introduced. This is because NCC adopted this approach with employers by providing support with understanding the scheme and introducing travel plans and workplace parking management schemes. In addition, setting the penalty charge at a sufficient level to act as a deterrent was also identified to boost the levels of compliance. A further recommendation is that schemes are designed with a lead-in period where employers are required to licence their spaces without a charge to allow businesses to become familiar with the licensing process and remedy any issues prior to introducing the charge. Collectively, these approaches ensured NCC experienced 100% compliance and no enforcement issues in the first two years of the scheme and is therefore a recommendation for other schemes.

Benefits of Policy Transfer

NCC Officers benefited significantly with respect to the design and operation of the WPL in Nottingham by using Policy Transfer. Officers learnt lessons from the Perth parking levy in terms of the details surrounding the implementation (business case, simplify the scheme, exemptions) and operation (penalties, enforcement) of a WPL. Officers from NCC learnt further lessons from the DfT with respect to the benefits of exempting businesses with a low number of spaces as well as applying a 100% discount as opposed to an exemption. These benefits therefore indicate the valuable lessons that can be learnt regardless of the complexity of the policy to improve the design, implementation and operation. This is because Policy Transfer actors can benefit from policies even if they differ in the name, design, operation or legislation so long as there are some fundamental similarities and the lessons are applied to their specific context. It is therefore recommended that practitioners engage in Policy Transfer so long as lessons are modified to best fit the new policy and context in which it is being introduced.

10.3.3 Recommendations relevant for future users of the Policy Transfer framework

The final recommendation is a methodological consideration for future researchers interested in Policy Transfer given that Marsden (2011) suggested that there was little practice in studying the process of Policy Transfer. This thesis has therefore studied the introduction of the WPL in Nottingham in an attempt to understand the processes and transfer of knowledge other locations. The findings indicate that different respondents had varied perspectives as to the role Policy Transfer has had with regards to the introduction of the WPL in Nottingham. For this reason, it is recommended that multiple interviews are undertaken with different stakeholders in order to generate a broad perspective and develop an accurate image as to the usefulness, as well the type of support that was received.

In addition to this view, the findings in this thesis have identified that Policy Transfer can occur between local authorities from different nations as well as within a nation despite the literature focusing on international borders. Moreover, it has also identified the importance of recognising the differences between what is transferred for Councillors and Officers as the findings suggested that these actors engaged for different reasons. This is because NCC politicians used Policy Transfer to generate support and alleviate fears whilst Officers used it to improve the design and operation of the scheme.

10.4 Contributions to Knowledge

Based on the limitations of the literature, the aim of this research was '*to investigate the transferability of the Workplace Parking Levy as a transport policy measure*'. This section will describe the various contributions to knowledge this research has made:

- It has provided a contemporary review of the issues associated with parking policies. This includes the reduced effectiveness of Local Authority parking strategies caused by a lack of control of PNR parking and more specifically the influence free parking at the workplace has on peak period congestion (section 2.2). This research has therefore focused on providing new literature with respect to the role the under researched WPL may have with addressing these concerns.
- It has made a significant contribution to knowledge in terms of providing an early detailed study of a parking levy outside Australia detailing the reasons why such a scheme may be introduced in England (section 9.3.1) as well as details surrounding the design, implementation, operation (section 9.3.3), impact (section 9.3.4) and likelihood of further adoption (section 9.4.2).

- It has detailed the political advantages of a WPL for Local Authorities including the fact that visitors and shoppers are not affected by the charge; some of those liable to the charge are likely to travel from outside a council's administrative area and those that benefit from the improvements are likely to be the council's electorate (section 9.3.2).
- It has highlighted differences between Government and Local Authorities in that Government place a greater emphasis on charging schemes for achieving a reduction in congestion whilst Local Authorities place a greater emphasis on the revenue that can be generated (section 9.2.2).
- Despite fears surrounding the negative business impact of a WPL, this research has provided evidence that such impact has not materialised in Nottingham at least in the short term and in contrast some employers may actually support the WPL in that it can act as a catalyst for businesses to manage the expectation and cost of providing free parking to employees. An additional reason is because of the greater importance some employers place on accessibility and good local transport compared with the operational cost of the site (section 6.7).
- It has highlighted the complexity of the WPL with respect to the wider objectives the scheme can deliver; this includes revenue, congestion, the environment, land use and economic prosperity (section 7.3).
- It has identified that parking policies are generally viewed by English Authorities to be unacceptable and ineffective for reducing congestion (section 8.3) and that there are a number of concerns preventing further adoption including issues with respect to enforcement, the perceived impact of the scheme as well as the principles of the measure (section 8.5).
- Despite this, evidence suggests that other English authorities are likely to consider introducing the WPL in the next ten years indicating that a WPL might have an increasing role as a transport policy measure in the future (section 8.7). The WPL was also identified by both Government and NCC to act as a potential precursor to a RUC by using the WPL revenue to improve local transport to make a stronger demand management measure more acceptable at a later date.
- It has applied the Policy Transfer framework to another area of activity providing evidence of where information was obtained, what was transferred, how different actors benefit, the benefits of allowing actors to engage in Policy Transfer, the successful transfer of a complex policy as well as the usefulness and difficulties of tracing the transfer process due to the different perceptions of stakeholders (section 9.4.3).
- It has demonstrated the importance of a 'first mover' authority introducing a policy within a nation to make a measure more familiar given the spread of parking levies in Australia as it

allows authorities from the same nation to learn from an 'experiment' due to the desire to learn lessons from locations with a similar context. The results of the first 'experiment' within a nation are however crucial to the future of a policy given the lessons, either positive or negative, will remain for a long period (section 5.3).

- It has also provided evidence to support the expansion of the Policy Transfer literature to ensure it encompasses learning at the local authority level between countries as well as within a single nation (section 3.5.5; 9.4.3). Such transfers within a nation are also more likely if more than one location introduces a policy through a perceived 'safety in numbers' view and provides some evidence to support the view that authorities may adopt a policy in order to not to fall behind a competitor.
- It has also identified that policies can be 'marketed' by both Government and Local Authorities to encourage further implementation as is the intention of the DfT and NCC with the WPL (section 9.4.3).

10.5 Limitations and Areas for Further Research

The study has provided insight into the WPL as a parking policy measure designed to address the issues associated with privately controlled parking at the workplace as well as its potential role in the future. It has provided both details of the development, design, implementation and operation of the scheme in Nottingham as well as the views of English authorities which can be used as a foundation for further research in this area. This section addresses the limitations of the research as well as areas of further research.

10.5.1 Early Stage Research

This thesis has focused on the development of the WPL policy at the national level as well as the design, implementation and operation of the scheme in Nottingham. Whilst the views of key stakeholders with respect to the short term and anticipated long term impact were ascertained along with documentation of the initial impacts of the Nottingham scheme, a more detailed analysis of the congestion and economic impact of the WPL would be of significant interest to academics, policy makers and practitioners alike. However due to the early stage nature of this research following the implementation of the WPL in Nottingham, the timing of this thesis has meant there was a lack of corroborative evidence on the performance of the WPL on the basis that the full WPL package had not been delivered. This is therefore an area of potential further research which is expected to be

completed via the DfT evaluation after the 2016/17 financial year once the full package has been delivered. Despite this, this thesis has provided the initial impacts of the Nottingham WPL such as the negligible business impact using data obtained from NCC which is an important interim finding until the formal evaluation is completed.

10.5.2 Widening the Scope

The case study results surrounding the design, implementation, operation and impact of a WPL in England are limited to the context of Nottingham on the basis that this was the only scheme that had been introduced. Whilst this thesis has provided a comprehensive review of the Nottingham WPL, future schemes are likely to differ and therefore further research into WPL's in different contexts, if they are introduced, would provide a greater understanding of the scheme. This is important due to the potential variation in the design of future policies given that other WPL schemes may be introduced for example without significant investment into a major infrastructure project but instead may consist of a lower charge with smaller improvements in attempt to nudge behaviour. If additional schemes are introduced and researched, it would allow a greater understanding of the design and implementation of such schemes as well as further information as to what a parking levy can deliver. This research is particularly important given the need to understand the context when a policy is being transferred. Accordingly, studying the introduction of additional schemes would therefore also allow further understanding as to whether Policy Transfer was involved, the role it had as well as the influence the evaluation of the Nottingham 'pilot' scheme had on the new scheme.

10.5.3 Dissemination of the evidence

Despite the concerns of Local Authorities associated with implementing a WPL, the introduction of the Nottingham scheme has been relatively 'painless' given that the main fear of businesses leaving has not materialised to-date. Given that Local Authorities are the architects of such schemes, it is therefore important that policy makers base their views on the impacts of such schemes using the evidence that is available. If the DfT evaluation therefore proves the Nottingham WPL to be a success with respect to meeting its objectives in terms of reducing congestion and providing revenue to improve local transport, Government should take up the responsibility of communicating and disseminating this evidence to Local Authorities to ensure the true impacts and wider objectives such a scheme can deliver are understood. This is particularly important given the negative views Local Authorities have with regards to the effectiveness of parking policies at reducing congestion identified in this thesis.

10.5.4 Understanding previous WPL decisions

Although NCC is the only authority to implement a WPL, the findings in Chapter 5 indicate that other members of the CDP were also interested in a WPL and received funding to develop charging schemes (Table 5.3). For this reason, case studies of these authorities would be of interest to understand the specific reasons as to why other authorities did not pursue a WPL. Despite this, difficulties of identifying the relevant authorities and staff was highlighted as a potential issue due to the fact that some of these decisions were made over 15 years ago and therefore many of the people involved were likely to have moved role which could lead to key information being missed. Whilst a snowball sample was used to cover such difficulties in this thesis for the Nottingham scheme, one DfT civil servant that worked closely on the legislation was identified as an interesting respondent although they had unfortunately recently passed away. This meant that natural limitations associated with the timing of the study after the initial event meant some key information may have been missed.

Publications and Conference Papers

1. Burchell, J. and Ison, S. 2012. Employer's attitudes to the Workplace Parking Levy: A case study of Nottingham, UK. Transportation Research Board 91st Annual Meeting, Washington DC, 22-26th January
2. Burchell, J. 2014. The Smeed Report Fifty Years on: A Role for the Workplace Parking Levy? In 46th UTSG Conference, Newcastle, 6-8th January
3. Burchell, J., Ison, S. and Enoch, M. 2014. Managing Congestion: Evaluating the Nottingham Workplace Parking Levy. Transportation Research Board 93rd Annual Meeting, Washington DC, 12-16th January
4. Burchell, J., Ison, S., Enoch, M. and Quddus, M. 2015. Assessing the likely take up of the Workplace Parking Levy as a transport policy instrument in the UK. Transportation Research Board 94th Annual Meeting, Washington DC, 11th-15th January
5. Burchell, J., Ison, S. and Enoch, M. (Accepted for Publication) The Smeed Report Fifty Years On: A Role for the Workplace Parking Levy? Transportation Planning and Technology

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Appendix A - Interview Questions

1. What is your view towards transport in Nottingham?
2. What do you understand by the concept of the Workplace Parking Levy?
3. What do you view to be the potential advantages of a WPL?
4. What do you view to be the potential disadvantages of a WPL?
5. Why do you believe a WPL was introduced in Nottingham?
6. What was your initial reaction to the proposal of a WPL when it was first announced?
7. Did those reactions change in the period following the first announcement?
8. What are your views with regard to introducing the WPL during the current economic climate?
9. What is your view of the way the revenue raised from the WPL is used?
10. What is your view with respect to the equity and fairness of the Workplace Parking Levy?
11. How do you believe NCC performed when introducing the WPL in Nottingham?
12. What do you believe NCC could have improved upon when introducing the WPL in Nottingham?
13. What are your views towards the consultation that was carried out by NCC?
14. Are you aware of any issues following the implementation of the WPL in Nottingham?
15. What do you view the short term impact of the WPL has been in Nottingham?
16. What do you view the long term impact of the WPL will be in Nottingham?
17. What is the likelihood another local authority in the UK will introduce a WPL?
18. Do you have any other comments that we have not covered in the interview?

Appendix B - Survey Questions and Design

Figure B1 illustrates how the questions appeared on the web survey used for the national sub-case study. Whilst all the questions appeared in a similar format, table B1 describes the questions that were asked for presentation purposes.

Figure B1 – Web Survey Design

Local Authority Perspectives with respect to Urban Transport related Issues

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Transport in your Locality

1. How would you regard the **seriousness** of each of the following transport-related issues within your Local Authority area?

	Not at all serious	Not very serious	Fairly serious	Serious	Very serious
a. Morning congestion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Evening congestion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Air pollution related to local transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Road wear and tear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Noise	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Social exclusion, such as the number of households without a car, lack of access to public transport and crime on public transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. How **important** do you believe the following to be within your Local Authority area?

	Very unimportant	Unimportant	Neither important nor unimportant	Important	Very important
a. An efficient and reliable road network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Efficient and reliable public transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Improvements to current public transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Good access to national road and rail links	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Safe and efficient cycling and walking routes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Reliable journey times for all modes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Encouraging travellers to use more sustainable methods for travelling to work (Public transport, walking, cycling)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Effectiveness and Acceptability

3. How **effective** do you believe the following measures are in terms of reducing congestion?

	Very ineffective	Fairly ineffective	Neither effective nor ineffective	Fairly effective	Very effective
a. Improvement in the frequency and reliability of public transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. A reduction in the cost of public transport for passengers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Improvement in local railway services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. An increase in parking charges on-street and off-street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. A reduction in the number of parking spaces on-street and off-street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. The implementation of a workplace parking levy as part of a package of measures (a charge employers pay based on the number of parking spaces at the workplace for staff)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. The implementation of a road user charging scheme as part of a package of measures (a charge motorists pay for the use of roads at certain times)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. An improvement in cycle ways and pedestrian routes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. An improvement in a park and ride network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Selective expansion of the road network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. An encouragement of car sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. An encouragement of home working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. How acceptable do you believe the following measures are in terms of reducing congestion?

	Very unacceptable	Fairly unacceptable	Neither acceptable nor unacceptable	Fairly acceptable	Very acceptable
a. Improvement in the frequency and reliability of public transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. A reduction in the cost of public transport for passengers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Improvement in local railway services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. An increase in parking charges on-street and off-street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. A reduction in the number of parking spaces on-street and off-street	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. The implementation of a workplace parking levy as part of a package of measures (a charge employers pay based on the number of parking spaces at the workplace for staff)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. The implementation of a road user charging scheme as part of a package of measures (a charge motorists pay for the use of roads at certain times)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. An improvement in cycle ways and pedestrian routes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. An improvement in a park and ride network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Selective expansion of the road network	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. An encouragement of car sharing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. An encouragement of home working	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. If money was no object, what would be your primary transport scheme or intervention undertaken in order to alleviate congestion in your Local Authority area? (Optional)

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Local Authority Perspectives with respect to Urban Transport related Issues



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Introduction of a Workplace Parking Levy

A Workplace Parking Levy (WPL) is a charge employers pay based on the number of staff car parking spaces at the workplace. All of the revenue raised from a WPL is ring-fenced to be spent on improving local transport. Nottingham City Council were the first, and to-date only Local Authority to introduce a WPL in the UK when a charge of £288 per parking space was placed on employers with 11 or more parking spaces in April 2012.

6. Has your Local Authority considered introducing a WPL?

☐ Yes ☐ No

7. If your Local Authority were to introduce a WPL, would it be introduced primarily...

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. to reduce congestion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. to raise revenue to fund transport improvements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. for environmental reasons	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. to improve land use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. to regenerate the area	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

8. To what extent do you agree with the following

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. A lack of political stability in your Local Authority would be a barrier to introducing a WPL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Introducing a WPL during the current economic climate would be an issue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. The revenue from the WPL should be ring fenced to be spent on improving local transport	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. A lack of understanding of the impact of a WPL would be an issue	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Your Local Authority does not have the resource required to explore and introduce a WPL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. It would be difficult to ascertain how many workplace parking places exist	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Local employers should fund local transport improvements	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. The employer should pay the full cost of the levy, and not pass it on to their staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. A WPL would not have an impact on congestion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. If other areas introduced a WPL, it would make a WPL in your Local Authority more attractive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. Following the introduction of the WPL in Nottingham, authorities will be more inclined to introduce a WPL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. If your Authority decided to introduce a WPL, you would seek advice from Local Authorities with a WPL in the UK	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
m. If your Authority decided to introduce a WPL, you would seek advice from Authorities with a WPL from overseas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9. If you were to introduce a WPL, which of the following user categories do you think should receive some form of exemption from the WPL?

	No exemption	Partial Exemption	Full Exemption
a. Schools, colleges and universities	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Hospitals	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Other emergency/essential services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Charitable owned buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. Local authority premises	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. Employers which promote green travel plans	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Disabled badge holders	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Motorcycles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. Car share (Vehicles with 2+ occupants)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. Low emission vehicles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. First few vehicles parked at a location	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10. How concerned would you be with respect to the following issues?

	Very unconcerned	Fairly unconcerned	Neither concerned nor unconcerned	Fairly concerned	Very concerned
a. The overall cost of implementing a WPL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Employer compliance with a WPL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Enforcement of a WPL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Equity/fairness of a WPL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
e. The public transport provision available as a realistic alternative to car use	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
f. How the revenue raised from the WPL would be used	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
g. Displaced Parking caused by a WPL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
h. Identifying the boundary where a WPL charge would apply within your Local Authority	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
i. The impact on the number of new businesses moving in to your locality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
j. The impact on existing businesses remaining in your locality	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
k. The short term impact of introducing a WPL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
l. The long term impact of introducing a WPL	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Continue >

Local Authority Perspectives with respect to Urban Transport related Issues

The WPL Charge

11. How much do you believe the annual cost of the WPL per parking space would need to be to achieve a significant reduction (more than 10%) in current workplace parking provision?

☐ Less than £200 ☐ £201-400 ☐ £401-600 ☐ £601-800 ☐ £801-1000 ☐ £1001 or over

12. If a WPL was introduced it could raise substantial amounts of revenue. Imagine you have 100 units of money ring-fenced to be spent on transport which represents the total amount of money raised from a WPL, what policies and in what proportion should the 100 units be allocated within your Local Authority? **(It is important to allocate ALL 100 units)**

a. Improve public transport provision	<input type="text"/>
b. Reduce public transport fares	<input type="text"/>
c. Make public transport more environmentally friendly	<input type="text"/>
d. Improve cycling and walking routes	<input type="text"/>
e. Improve the road network	<input type="text"/>
f. Provide support for businesses to introduce travel plans	<input type="text"/>
g. Better enforcement of traffic regulations, such as strengthening of parking controls	<input type="text"/>
h. Other (Please specify and write text in box with value)	<input type="text"/>

13. Do you think your Local Authority is likely to consider introducing a WPL in the next...

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
a. Five years	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Ten years	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
c. Never	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Continue >

Final Points

14. What type of Local Authority do you work for?

- ☐ Unitary
- ☐ County
- ☐ Metropolitan
- ☐ London Borough

15. What is your role within the Local Authority?

- ☐ Councillor
- ☐ Officer

16. Local Authority Name *(Optional)*

17. Would you like a summary of the results from the survey?

- ☐ Yes ☐ No

18. Contact email address. (If you would like a summary of the results please enter a contact email) *(Optional)*

19. Any other comments *(Optional)*

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Appendix C – Variables used for Model

Table C1 below presents all of the variables that were tested to build the model described in Chapter 8. Each question was coded into two dummy variables where there was a positive dummy variable and a negative dummy variable. For example for question 1, Dummy 1 would represent where a respondent answered agree or strongly agree that morning congestion is serious and Dummy 2 would represent where a respondent answered disagree or strongly disagree. The only exception was for question 19 and 20 where there was only one dummy variable created for each question due to the binary nature of the data.

Table C1 – Variables used for Model

Question	No.	Answer
How would you regard the seriousness of each of the following transport-related issues within your Local Authority area?	1	Morning congestion
	2	Evening congestion
	3	Air pollution related to local transport
	4	Road wear and tear
	5	Noise
	6	Social Exclusion
How effective do you believe the following measures are in terms of reducing congestion?	7	Improvement in frequency and reliability of public transport
	8	A reduction in the cost of public transport for passengers
	9	An increase in parking charges on-street and off-street
	10	A reduction in the number of parking spaces on-street and off-street
	11	The implementation of a workplace parking levy as part of a package of measures
How acceptable do you believe the following measures are in terms of reducing congestion?	12	The implementation of a road user charging scheme as part of a package of measures
	13	Improvement in frequency and reliability of public transport
	14	A reduction in the cost of public transport for passengers
	15	An increase in parking charges on-street and off-street
	16	A reduction in the number of parking spaces on-street and off-street
Has your Local Authority considered introducing a WPL?	17	The implementation of a workplace parking levy as part of a package of measures
	18	The implementation of a road user charging scheme as part of a package of measures
If your Local Authority were to introduce a WPL, would it be introduced primarily...	19	Yes
	20	No
	21	To reduce congestion
	22	To raise revenue to fund transport improvements
	23	For environmental reasons
	24	To improve land use
	25	To regenerate the area

To what extent do you agree with the following	<p>26 A lack of political stability in your Local Authority would be a barrier to introducing a WPL</p> <p>27 Introducing a WPL during the current economic climate would be an issue</p> <p>28 The revenue from the WPL should be ring fenced to be spent on improving local transport</p> <p>29 A lack of understanding of the impact of a WPL would be an issue</p> <p>30 Your Local Authority does not have the resource required to explore and introduce a WPL</p> <p>31 It would be difficult to ascertain how many workplace parking places exist</p> <p>32 Local employers should fund local transport improvements</p> <p>33 The employer should pay the full cost of the levy, and not pass it on to their staff</p> <p>34 A WPL would not have an impact on congestion</p> <p>35 If other areas introduced a WPL, it would make a WPL in your Local Authority more attractive</p> <p>36 Following the introduction of the WPL in Nottingham, authorities will be more inclined to introduce a WPL</p> <p>37 If your Authority decided to introduce a WPL, you would seek advice from Local Authorities with a WPL in the UK</p> <p>38 If your Authority decided to introduce a WPL, you would seek advice from Authorities with a WPL from overseas</p>
How concerned would you be with respect to the following issues?	<p>39 The overall cost of implementing a WPL</p> <p>40 Employer compliance with a WPL</p> <p>41 Enforcement of a WPL</p> <p>42 Equity/fairness of a WPL</p> <p>43 The public transport provision available as a realistic alternative to car use</p> <p>44 How the revenue raised from the WPL would be used</p> <p>45 Displaced Parking caused by a WPL</p> <p>46 Identifying the boundary where a WPL charge would apply within your Local Authority</p> <p>47 The impact on the number of new businesses moving in to your locality</p> <p>48 The impact on existing businesses remaining in your locality</p> <p>49 The short term impact of introducing a WPL</p> <p>50 The long term impact of introducing a WPL</p>